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September 1, 2017

# VIA ELECTRONIC FILING

M. Lynn Jarvis, Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, North Carolina 27699-4300

RE: Duke Energy Progress, LLC 2017 Integrated Resource Plan Update and 2017 REPS Compliance Plan Docket No. E-100, Sub 147

Dear Ms. Jarvis:

Pursuant to N.C. Gen. Stat. § 62-133.8, Commission Rules R8-60, R8-62(p) and R8-67, I enclose Duke Energy Progress, LLC's ("DEP or the "Company") 2017 Integrated Resource Plan Update ("IRP Update") and 2017 Renewable Energy and Energy Efficiency Portfolio Standard ("REPS") Compliance Plan (collectively, the "2017 IRP"), for filing in connection with the referenced matter.

Portions of the DEP 2017 IRP Update contain confidential information that should be protected from public disclosure. Pages 64, 81 and 82 contain information concerning DEP's wholesale contracts. Public disclosure of this information would harm DEP's and/or its counterparties' ability to negotiate in the wholesale market. Table 2 on page 195 of the 2017 REPS Compliance Plan contains the Company's combustion turbine costs. If this commercially sensitive business and technical information were to be publicly disclosed, it would allow competitors, vendors and other market participants to gain an undue advantage, which may ultimately result in harm to customers. Exhibit A of the 2017 REPS Compliance Plan, pages 198 through 209, contains names of counterparties with whom DEP has contracted for Renewable Energy Certificates ("RECs"), contract duration and estimated RECs. Public disclosure of this information would harm DEP's ability to negotiate and procure cost-effective purchases and discourage potential bidders from participating in requests for proposals. Pursuant to an agreement with the Public Staff in 2015, DEP plans to provide its most recent FERC

Form 715, which contains critical energy infrastructure information that should be kept confidential and non-public, to the Public Staff rather than filing with the Commission.

Accordingly, I am filing portions of the 2017 IRP Update under seal; they should be treated confidentially pursuant to N.C. Gen. Stat. § 132-1.2 and protected from public disclosure. The Company will provide a copy of the confidential information to parties to this proceeding upon execution of an appropriate confidentiality agreement with DEP.

DEP will schedule the Rule R8-60(m) stakeholder meeting by November 30 and will contact parties of record to attempt to accommodate as many as possible with a selected date and location.

Thank you for your attention to this matter. If you have any questions, please let me know.

Lawrence B. Somers'

Enclosure

cc: Parties of record

#### CERTIFICATE OF SERVICE

I certify that a copy of Duke Energy Progress, LLC's 2017 IRP Update and 2017 REPS Compliance Plan, in Docket No. E-100, Sub 147, has been served by electronic mail, hand delivery or by depositing a copy in the United States mail, postage prepaid to the following parties of record:

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This is the 1<sup>st</sup> day of September, 2017.

Ву:

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### 1. INTRODUCTION

For more than a century, Duke Energy Progress (DEP) has provided affordable and reliable electricity to customers in North Carolina (NC) and South Carolina (SC) now totaling more than 1.5 million in number. The Company continues to serve its customers by planning for future demand requirements in the most reliable and economic way possible using increasingly clean forms of energy.

Historically, each year, as required by the North Carolina Utilities Commission (NCUC) and the Public Service Commission of South Carolina (PSCSC), DEP submits a long-range planning document called the Integrated Resource Plan (IRP). The IRP details potential infrastructure needed to match the forecasted electricity requirements and a reasonable reserve margin to maintain system reliability for our customers over the next 15 years.

On July 20, 2015, the NCUC ordered that the IRP process between biennial IRPs be significantly streamlined. As such, the remainder of this document provides updates to DEP's 2016 IRP as ordered by the NCUC for this update year IRP.

The Company files separate 2017 IRPs for North Carolina and South Carolina. However, the IRP analyzes the system as one DEP utility across both states including customer demand, energy efficiency (EE), demand side management (DSM), renewable resources and traditional supply-side resources. As such, the quantitative analysis contained in both the North Carolina and South Carolina filings is identical, while certain sections dealing with state-specific issues such as state renewable standards or environmental standards may be specific to that state's IRP.

### 2. 2017 IRP SUMMARY

Each year, as required by the NCUC, DEP submits an IRP detailing potential infrastructure needed to meet the forecasted electricity requirements for its customers over the next 15 years. The 2017 IRP is the best projection of how the Company's capacity and energy portfolio over the next 15 years, based on current data assumptions. This projection may change over time as variables such as the projected load forecasts, fuel price forecasts, environmental regulations, technology performance characteristics and other outside factors change.

The proposed plan will meet the following objectives:

- Provide reliable electricity especially during peak demand periods by maintaining adequate reserve margins. Peak demand refers to the highest amount of electricity being consumed for any given hour across DEP's entire system.
- Add new resources at the lowest reasonable cost to customers. These resources include a
  balance of EE, DSM, renewable resources, nuclear facilities, hydro generation and
  natural gas generation.
- Improve the environmental footprint of the portfolio by meeting or exceeding all federal, state and local environmental regulations.

As 2017 is an update year, DEP developed four cases which reflect updates to the 2016 IRP base case. The first case, or the "Base Case," is an update to the presented base case in the 2016 IRP, which includes the expectation of future carbon legislation and no relicensing of existing nuclear units. Additionally, a "No Carbon Case" was developed in which no carbon legislation, without nuclear relicensing, is considered. Finally, given the uncertainty of new and existing nuclear generation, the Base Case and No Carbon Case are also evaluated with relicensing of existing nuclear units. All results presented in this IRP represent the Base Case without nuclear relicensing, except where otherwise noted. As discussed in more detail throughout this report, updates in this year's IRP impact the forecasted timing and amount of renewable and natural gas resource additions within the 15 year study window.

#### Renewable Energy

The Company continues to aggressively pursue additional cost-effective renewable resources as a growing part of its energy portfolio. The Company's commitment, coupled with supporting legislation such as North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard (NC REPS) and South Carolina's Distributed Energy Resource Program Act (SC DER Program), have led to significant growth in renewable resource development in the Carolinas.

Furthermore, on July 27, 2017, North Carolina Governor Cooper signed into law the "Competitive Energy Solutions for North Carolina" bill or House Bill 589 (HB 589). As discussed in more detail in Section 4.b. of this report, HB 589 calls for the establishment of a competitive procurement process by which the Company will pursue additional solar resources in its service territory, provided that they are cost-effective for consumers. Commensurately, the update contained in this year's IRP reflects the initial forecast of increases in renewable additions as a result of HB 589.

It must be noted, however, that at the time of this report filing, the rules, regulations and details surrounding the implementation of HB 589 are still under development. As these rules are finalized and the Company gains experience with the new competitive procurement process, updated forecasts will be presented in subsequent IRPs.

### **Natural Gas Resources**

As the Company transitions to a more efficient and increasingly clean generation mix, new natural gas generation facilities will play a vital role in meeting consumer demand over the next decade. Technical advancements in new natural gas generation facilities continue to improve unit efficiencies and performance characteristics. This enhanced efficiency and flexibility lowers the operating cost of new units while providing additional operational flexibility to the existing generation fleet, which assists in the integration of incremental solar generation. Beyond improved unit efficiency, continued declines in natural gas prices also lowers the operating cost of new natural gas generation.

Evolving its planning and procurement process, the Company has modified its natural gas procurement practices to now periodically purchase natural gas forward contracts for a period of up to ten years into the future. These longer-term forward purchases allow the Company to assess the fair value of natural gas and associated power purchases well into the future. The most recent long-dated purchase made just prior to the filing of this IRP demonstrated a continued decline in long-term natural gas prices as compared to those assumed in the 2016 IRP and the subsequent avoided cost rate filing.

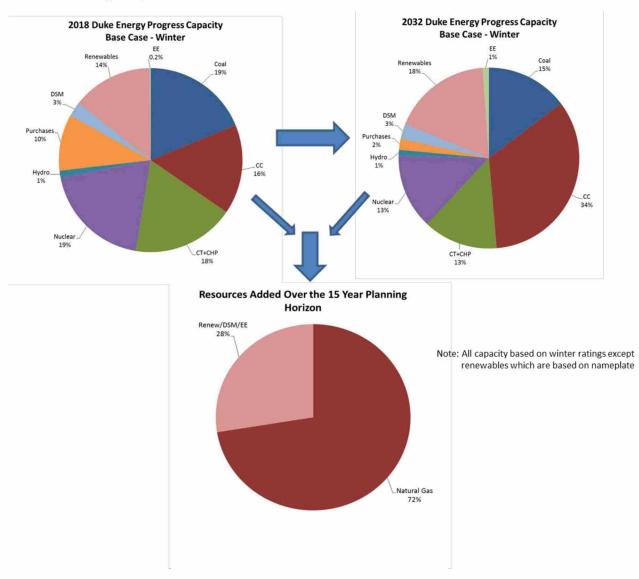
In addition to the Renewable Energy and Natural Gas updates, other changes and issues since the 2016 IRP are discussed in this document. Those changes and issues include:

- Load Forecast
- Nuclear Assumptions
- Combined Heat & Power (CHP) Projections

- Resource Adequacy
- Fuel Costs
- Carbon Assumptions
- Technology Construction and Operating Costs
- Transmission Planned and Under Construction

As shown in the 2017 IRP Base Case, projected incremental needs are driven by load growth and the retirement of aging coal-fired resources. The 2017 IRP seeks to achieve a reliable, economic long term power supply through a balance of incremental renewable resources, EE, DSM, and traditional supply-side resources planned over the coming years which allows the Company to maintain a diversified resource mix while also providing increasingly clean energy. Chart 2-A represents the incremental investments required to meet future needs.

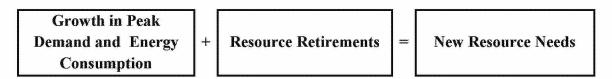
Chart 2-A 2018 and 2032 Base Case Winter Capacity Mix and Sources of Incremental Capacity



### 3. IRP PROCESS OVERVIEW

To meet the future needs of DEP's customers, it is necessary for the Company to adequately understand the load and resource balance. For each year of the planning horizon, the Company develops a load forecast of cumulative energy sales and hourly peak demands. To determine total resources needed, the Company considers the peak demand load obligation plus a 17% minimum planning reserve margin.

The projected capability of existing resources, including generating units, EE and DSM, renewable resources and purchased power contracts, is measured against the total resource need. Any deficit in future years will be met with a mix of additional resources that reliably and cost-effectively meet the load obligation and planning reserve margin while complying with all environmental and regulatory requirements.



It should be noted that DEP considers the non-firm energy purchases and sales associated with the Joint Dispatch Agreement (JDA) with Duke Energy Carolinas (DEC) in the development of its independent Base Case. To accomplish this, DEP and DEC plans are determined simultaneously to minimize revenue requirements of the combined jointly-dispatched system while maintaining independent reserve margins for each company.

For the first time in the 2016 IRP, DEP developed resource plans that also include new resource additions driven by winter peak demand projections inclusive of winter reserve requirements. The completion of a comprehensive reliability study demonstrated the need to include winter peak planning in the IRP process. The study recognized the growing volatility associated with winter morning peak demand conditions such as those observed during recent polar vortex events. The study also incorporated the expected significant growth in solar facilities that provide valuable assistance in meeting summer afternoon peak demands on the system but do little to assist in meeting demand for power on cold winter mornings. As discussed in more detail in the Resource Adequacy section, the significant penetration of solar resources and the associated impact on summer versus winter reserves is the primary driver for the Company's shift to winter capacity planning. Based on results of the reliability study, DEP is now utilizing a winter planning reserve margin of 17% in its planning process.

For the 2017 Update IRP, the Company presents a Base Case with a carbon tax beginning in 2026. The Clean Power Plan (CPP) rule that was finalized on August 3, 2015 by the EPA is under interagency review for potential repeal. As a result, the timing and details of any potential future carbon legislation are highly uncertain. However, remaining consistent with the Commission's Order to both include and exclude costs associated with carbon regulation, the current assumption of a carbon tax is intended to serve as a placeholder for some form of potential future carbon regulation. <sup>1</sup>

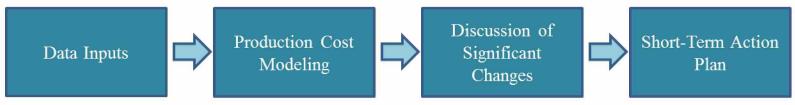
While future carbon legislation is unknown, the Company feels that it is prudent to continue to plan for this scenario, as well as other potential future scenarios. Furthermore, a primary focus of this update IRP is the Short-Term Action Plan (STAP), which covers the period 2018 to 2022. It was determined that the inclusion of the carbon tax did not have a significant impact on the STAP, and therefore the majority of the data presented in this report represents the Base Case.

Figure 3-A represents a simplified overview of the resource planning process in the update years (odd years) of the IRP cycle.

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<sup>&</sup>lt;sup>1</sup> "Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans"; NCUC Docket No. E-100, Sub 147; p. 35

Figure 3-A Simplified IRP Process



- > Load Forecast
- ➤ Fuel Price Forecasts
- Existing Generation
- ➤ Energy Efficiency
- Demand Response
- > Renewable Resources
- New Generation
- > Environmental Legislation
  - Reserve Margin

- With CO<sub>2</sub> and No Nuclear Relicensing (Base Case)
- ➤ Without CO<sub>2</sub> and No Nuclear Relicensing
- ➤ With CO<sub>2</sub> and Nuclear Relicensing
- ➤ Without CO<sub>2</sub> and Nuclear Relicensing

- Since 2016 Biennial IRP
  - Load Forecast
  - > Fuel Prices
  - Nuclear Assumptions
  - Renewables (HB589)
  - > CHP and Energy Storage
  - Carbon Assumptions
  - > Transmission Planned or Under Construction

> 2018 through 2022

### 4. SIGNIFICANT CHANGES FROM THE 2016 IRP

As an initial step in the IRP process, all production cost modeling data is updated to include the most current data. Throughout the year, best practices are implemented to ensure the IRP best represents the Company's planning assumptions including load forecast, generation system, conservation programs, renewable energy and fuel costs. The data and methodologies are regularly updated and reviewed to determine if adjustments can be made to further improve the IRP process and results.

As part of the review process, certain data elements, with varying impacts on the IRP, inevitably change. A discussion of new or updated data elements that have the most substantial impact on the 2017 IRP is provided below.

### a) Load Forecast

The Company continues to utilize the statistically adjusted end use models (SAE) provided by ITRON to forecast sales and peaks with reasonable results.

Each time the forecast is updated, the most currently available historical and projected data is used. The Spring 2017 forecast which was used in the development of the Company's 2017 IRP utilizes:

- Moody's Analytics January 2017 base economic projections
- End use equipment and appliance indexes reflecting the 2016 update of ITRON's end-use data, which is consistent with the Energy Information Administration's 2016 Annual Energy Outlook
- A calculation of normal weather using the period 1987-2016

Additional focus is being placed on the hourly shaping of sales, which plays a critical role in forecasting summer and winter peaks. While much of this work is ongoing and will be incorporated in the 2018 IRPs, the Company continues to review the weather sensitivity of winter and summer peaks, as well as the hourly shaping of behind-the-meter solar, utility-sponsored energy efficiency programs (UEE), electric vehicles, and other variables.

Additional focus is also being placed on Duke's load research sample data, to gain a better understanding of historical hourly demand trends, winter and summer peaking characteristics by customer class, and minimums by customer class, in continuous efforts to improve forecast accuracy.

Table 4-A depicts the projected average annual growth rates of several key drivers from DEP's Spring 2017 Forecast.

**Table 4-A Key Drivers** 

	2018-2032
Real Income	2.7%
Manufacturing Industrial Production Index (IPI)	1.3%
Population	1.6%

In addition to economic, demographic, and efficiency trends, the forecast also incorporates the expected impacts of utility-sponsored energy efficient programs, as well as projected effects of electric vehicles and behind-the-meter solar technology.

The results of the Spring 2017 Forecast as compared to Spring 2016 Forecast is presented in Table 4-B below.

Table 4-B 2017 Load Forecast Growth Rates vs. 2016 Load Forecast Growth Rates (Retail and Wholesale Customers)

	2	017 Forecas	st	2016 Forecast			
	(	2018 - 2032	)	(2017 - 2031)			
	Summer	Summer Winter			Winter		
	Peak	Peak	Energy	Peak	Peak	Energy	
	Demand	Demand		Demand	Demand		
Excludes impact of	0.9%	0.8%	0.8%	1.3%	1.4%	1.1%	
new EE programs	0.570	0.870	0.870	1.370	1.770	1,170	
Includes impact of	0.7%	0.7%	0.6%	1.1%	1.3%	0.9%	
new EE programs	0.770	0.770	0.076	1.1/0	1.3/0	0.3/0	

### b) Renewable Energy

The growth of renewable generation in the United States continues to outpace that of non-renewable generation. In 2016, more than 16,000 MW of wind and solar capacity were installed nationwide compared to approximately 10,000 MW for natural gas, coal, nuclear, and other technologies.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> All renewable energy MW represent MW-AC (alternating current) unless otherwise noted.

North Carolina ranked in the top five in the country in solar capacity added in 2016, second behind only California in total solar capacity online. Duke Energy's compliance with the North Carolina Renewable Energy and Energy Efficiency Portfolio Standards (NC REPS) and the Public Utilities Regulatory Policy Act (PURPA) as well as the Federal Investment Tax Credit (ITC) were key factors behind the high penetration of solar in the state. North Carolina's current favorable avoided cost rates and 15-year contract terms for qualifying facilities (QFs) under PURPA have contributed to record numbers of projects in the interconnection queue, with the DEP and DEC combined solar queue representing more than 7,000 MW.

To reduce the dependence on PURPA while continuing to support solar growth in a sustainable and economically attractive manner, on July 27, 2017 Governor Cooper signed into law the "Competitive Energy Solutions for North Carolina" bill or House Bill 589 (HB 589). The law reduces the maximum size of standard contracts offered to solar projects to 1 MW and reduces the contract term to 10 years.

HB 589 also introduces a competitive procurement process for renewable resources including large-scale solar facilities that continues to enable third-party and utility-owned renewable development. Capacity referred to as the "Transition" MW in this document represents the total capacity of projects in the combined Duke Balancing Authority area that are (1) already connected; or (2) have entered into purchase power agreements and interconnection agreements as of the end of the 45-month competitive procurement period, provided that they are not subject to curtailment or economic dispatch. HB 589 targets 2,660 MW of competitively procured renewable resources over a 45-month period, which may vary based on the amount of "Transition" MW at the end of the 45-month period. It is expected that 3,500 MW of "Transition" MW will exist in the combined Duke Balancing Authority area at the end of the 45-month period. The capacity additions from the competitive procurement will be in addition to the expected 3,500 MW of "Transition" MW. Projects in both North Carolina and South Carolina are eligible for the competitive procurement process.

Growing customer demand, the federal ITC, and declining installed solar costs make solar capacity the Company's primary renewable energy resource in the 2017 IRP. The 2017 IRP makes the following key assumptions regarding renewable energy:

- Installed solar capacity increases in DEP from 2,448 MW in 2018 to 3,847 MW in 2032
- Compliance with NC REPS continues to be met through a combination of solar, other renewables, EE, and Renewable Energy Certificate (REC) purchases;
- Achievement of the SC DER Program goal of 39 MW of solar capacity located in DEP-SC;

 Passage of HB 589 and continuing solar cost declines drive solar capacity growth above and beyond NC REPS requirements.

# **Interconnection Queue and the Transition**

Through the end of 2016, DEP had more than 1,200 MW of third party utility scale solar on its system, with more than 300 MW interconnecting in 2016. When renewable resources were evaluated for the 2017 IRP, DEP reported another approximately 650 MW of third party solar under construction and more than 5,000 MW in the interconnection queue. Table 4-C depicts the interconnection queue for DEP as of June 30, 2017.

Table 4-C DEP OF Interconnection Queue (as of June 30, 2017)

Utility	FacilityState	Energy Source Type	Number of Pending Projects	Pending Capacity (MW AC)
DEP	NC	Biogas	1	6
		Biomass	3	50
		Diesel	8	4
		Natural Gas	3	530
		Solar	372	3,998
	NC Total		387	4,588
	sc	Diesel	1	0
		Solar	111	1,427
	SC Total		112	1,427
DEP Total			499	6,015

Projecting future solar connections from the interconnection queue has presented a significant challenge due to the large number of project cancellations and ownership transfers. If the aggregate capacity in the "Transition" exceeds 3,500 MW, the competitive procurement volume of 2,660 MW will be reduced by the excess amount; conversely, if the "Transition" falls short of 3,500 MW the Companies will conduct additional competitive procurement.

DEP's contribution to the "Transition" depends on a number of variables including connecting projects under construction, the number of projects in the queue with power purchase agreements, interconnection agreements, and/or settlement agreements, and SC DER Program Tier I. In total, DEP may contribute roughly three-quarters of the "Transition" MW with DEC accounting for the remaining quarter.

# **NC REPS Compliance**

DEP remains committed to meeting the requirements of NC REPS, including the poultry waste, swine waste, and solar set-asides, and the general requirement, which will be met with additional solar, hydro, biomass, landfill gas, wind, and energy efficiency resources. DEP's long term general compliance needs are expected to be met through a combination of renewable resources, including via solar RECs obtained through the HB 589 competitive procurement process. For details of DEP's NC REPS compliance plan, please reference the NC REPS Compliance Plan section.

# HB-589 Competitive Procurement and Utility-Owned Solar

DEP continues to evaluate utility-owned solar additions to grow its renewables portfolio. DEP is operating four utility-scale solar projects as part of its efforts to encourage emission free generation resources and help meet its compliance targets, totaling 141 MW-AC:

- Camp Lejeune Solar Facility 13 MW, located in Onslow County, placed in service in November 2015;
- Warsaw Solar Facility 65 MW, located in Duplin County, placed in service in December 2015;
- Fayetteville Solar Facility 23 MW, located in Bladen County, placed in service in December 2015; and
- Elm City Solar Facility 40 MW, located in Wilson County, placed in service in March 2016.

As mentioned above, HB 589 calls for 2,660 MW of additional solar in the Carolinas, which may vary depending upon how the actual "Transition" MW compare to the initial 3,500 MW estimate. RFPs will be issued over a 45-month period under the competitive procurement process; DEP may own up to 30% of the competitive procurement volume it self-develops. DEP will also evaluate the potential for acquiring facilities where appropriate. HB 589 does not stipulate a limit for DEP's option to acquire third party projects. Since the majority of the solar projects connected during the "Transition" will be in DEP's territory, DEC is expected to have the majority of the competitive procurement projects, helping to balance the portfolios and mitigate additional operational challenges in DEP.

The 2017 IRP Base Case assumes that the winning bids under competitive procurement will be priced below avoided costs, but it is important to note that a number of factors could prevent this from happening. The utility's avoided cost rates, as approved by the NCUC, and the cost

of solar are two critical inputs for forecasting how much of the competitive procurement will materialize. Avoided cost forecasts are subject to variability due to changes in factors such as natural gas and coal commodity prices, system energy and demand requirements, the level and cost of generation ancillary service requirements and interconnection costs. Changes in these factors will result in changing avoided cost values over the upcoming years with the potential to impact the cost-effectiveness of future competitive procurement solicitations.

Similarly, solar costs are also influenced by a number of variables. Panel prices have decreased at a significant rate and are expected to continue to decline. However, there are political factors, such as the Suniva International Trade Commission (ITC) case, that have the potential to increase panel prices.<sup>3</sup> Additional factors that could put upward pressure on solar costs include direct interconnection costs, as well as costs incurred to maintain the appropriate operational control of the facilities. Finally, as panel prices have decreased, there has been more interest in installing single-axis tracking (SAT) systems and/or systems with higher inverter load ratios (ILR) which change the hourly profile of solar output and increase expected capacity factors. DEP will incorporate different configurations further in the 2018 IRP.

In summary, there is a great deal of uncertainty in both the future avoided cost value of solar and the expected price of solar installations in the years to come. As a result, the Company will continue to closely monitor and report on these changing factors in future IRP and competitive procurement filings.

In preparation for the HB 589 competitive procurement process, the Company continues to build its relationships with suppliers, Engineering, Procurement, and Construction Contractors (EPCs), and other entities to create greater efficiencies in the supply chain, reduce construction costs, reduce operating and maintenance costs (O&M), and enhance system design. In anticipation of future solar growth, DEP is positioning itself to properly integrate renewable resources to the grid regardless of ownership.

In addition to ensuring DEP has operational control over future solar associated with HB 589, the intermittency of solar output will require the Company to evaluate and invest in technologies to provide solutions for voltage, volt-ampere reactive (VAR), and/or higher ancillary reserve requirements.

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<sup>&</sup>lt;sup>3</sup> In April, 2017, Suniva officially filed a petition to the ITC under Section 201 of the Trade Act of 1974. Suniva is requesting relief against imports from all geographic sources and requesting both a minimum price on crystalline silicon PV modules (initially \$0.78/W) and a tariff on cells (initially \$0.40/W). As expected, the petition only applies to crystalline silicon. (GTM Research Suniva Trade Dispute Update)

#### **HB 589 Customer Programs**

In addition to the competitive procurement process, HB 589 offers direct renewable energy procurement for major military installations, public universities, and other large customers, as well as a community solar program. These programs will be a great complement to the existing customer-oriented strategies in SC, the SC DER Program.

The renewable energy procurement carve out for large customers such as military installations and universities may have similarities to DEC's Green Source Rider program. The program allows for up to 600 MW of total capacity, with set asides for military installations (100 MW of the 600 MW) and the UNC system (250 MW of the 600 MW). The 2017 IRP base case assumes all 600 MW of this program materialize, with the DEP/DEC split expected to be roughly equal. If all 600 MW are not utilized, the remainder will roll back to the competitive procurement, increasing its volume.

The community solar portion of HB 589 calls for up to 20 MW of shared solar in DEP. This program may have similarities to SC DER Program's community solar program. The 2017 IRP Base Case assumes that all 20 MW of the program materialized.

HB 589 also calls for a rebate program for rooftop solar as well as a leasing program, and the establishment of revised net metering rates. Given the uncertainty around the timing and structuring of these programs, it is challenging to assess the impact HB 589 will have on rooftop solar adoption in NC.

### SC DER Program Solar

Steady progress continues to be made with the first two tiers of the SC DER Program summarized below, unlocking the third tier:

- Tier I: 13 MW of solar capacity from facilities each >1 MW and <10 MW in size.
- Tier II: 13 MW met of behind-the-meter rooftop solar facilities for residential, commercial
  and industrial customers, each ≤1 MW, 25% of which must be ≤ 20 kilowatts (kW). Since
  Tier II is behind the meter, the expected solar generation is embedded in the load forecast as
  a reduction to expected load.
- Tier III: Investment by the utility in 13 MW of solar capacity from facilities each >1 MW and <10 MW in size. Upon completion of Tiers I and II (to occur no later than 2021), the Company can directly invest in additional solar generation to complete Tier III.

The Company launched its first Shared Solar program as part of Tier I. Often called "community solar," shared solar refers to both a solar facility and a billing structure in which multiple customers subscribe to and share in the economic benefits of the output of a single solar facility. The Company designed its initial SC DER shared solar program such that it would have strong appeal to residential and commercial customers who rent or lease their premises, residential customers who reside in multifamily housing units or shaded housing, and residential customers for whom the relatively high up-front costs of solar PV make net metering unattainable. Tier II has resulted in growth in rooftop solar for DEP SC, although it has not been as significant as DEC SC to this point.

# **Battery Storage and Wind**

In addition to solar, the Company is assessing renewable technologies such as battery storage and wind. Battery storage costs are expected to continue to decline significantly which may make it a viable option in the long run to support grid services including frequency regulation, solar smoothing, and/or energy shifting from localized renewable energy sources with a high incidence of intermittency (i.e. solar and wind). The Company intends to begin investing in multiple systems dispersed throughout its North and South Carolina service territories that will be located on property owned by the Company or leased from its customers. These deployments will allow Duke Energy and its customers to evaluate the costs and impacts of batteries deployed at a significant scale, explore the nature of new offerings desired by customers, and fill knowledge gaps. Among the DEP and DEC territories, as much as 75 MW of utility-owned and operated battery storage may be dispersed in the 2019-2021 time period. Additionally, HB 589 calls for an energy storage study to assess the economic potential for NC customers.

DEP currently has one battery constructed and two in the interconnection queue in the western Carolinas region to support the Western Carolinas Modernization Project (WCMP). DEP will site at least 15 MW of solar and 5 MW of storage capacity in the DEP-Western Region to support the retirement of the two coal units at Asheville.

DEP considers wind a potential energy resource in the long term to support increased renewables portfolio diversity and long-term general compliance needs. However, investing in wind inside of DEP's footprint may be challenging in the short term, primarily due to a lack of suitable sites, permitting challenges, and more modest capital cost declines relative to other renewable technologies like solar. Opportunities may exist to transmit wind energy into the Carolinas from out of state regions where wind is more cost-effective.

# **Summary of Expected Renewable Resource Capacity Additions**

The 2017 IRP incorporates the base case renewable capacity forecast below. This case includes renewable capacity required for compliance with NC REPS, non-compliance PURPA renewable purchases part of the "Transition" MW of HB 589, as well as SC DER Program, and the additional three components of HB 589 (competitive procurement, renewable energy procurement for large customers, and community solar). The Company anticipates a diverse portfolio including solar, biomass, hydro, and other resources. Actual results could vary substantially for the reasons discussed previously, as well as other potential changes to legislative requirements, tax policies, technology costs, and other market forces. The details of the forecasted capacity additions, including both nameplate and contribution to winter and summer peaks are summarized in Table 4-D below.

While solar does not normally reach its maximum output at the time of DEP's expected peak load in the summer, solar's contribution to summer peak load is large enough (44% of nameplate solar capacity) that it may push the time of summer peak from hour beginning 4:00 PM to 5:00 PM or later if solar penetration levels continue to increase. However, solar is unlikely to have a similar impact on the morning winter peak due to lower expected solar output in the morning hours (5% of nameplate solar capacity). Contribution to peak assumptions will continue to be evaluated in 2018, with specific attention given to different configurations of solar projects with fixed tilt or tracking systems and different ILRs.

Table 4-D DEP Base Case Total Renewables

DEP Base Renewables - Compliance + Non-Compliance												
	MW Nameplate				MW Contribution to Summer Peak					MW Contrib	oution to Wir	nter Peak
		Biomass/				Biomass/					Biomass/	
	Solar	Hydro	Total		Solar	Hydro	Total			Solar	Hydro	Total
2018	2448	256	2704		1077	256	1333		2017/2018	122	256	378
2019	2714	214	2928		1194	214	1408		2018/2019	136	214	350
2020	3162	214	3377		1391	214	1606		2019/2020	158	214	372
2021	3371	214	3586		1483	214	1698		2020/2021	169	214	383
2022	3580	79	3658		1575	79	1654		2021/2022	179	79	258
2023	3767	71	3838		1657	71	1729		2022/2023	188	71	260
2024	3928	71	3999		1728	71	1799		2023/2024	196	71	268
2025	3945	62	4007		1736	62	1798		2024/2025	197	62	259
2026	3925	61	3985		1727	61	1788		2025/2026	196	61	257
2027	3905	61	3966		1718	61	1779		2026/2027	195	61	256
2028	3886	56	3942		1710	56	1766		2027/2028	194	56	251
2029	3866	51	3917		1701	51	1752		2028/2029	193	51	244
2030	3847	45	3892		1693	45	1737		2029/2030	192	45	237
2031	3847	31	3878		1693	31	1724		2030/2031	192	31	224
2032	3847	31	3878		1693	31	1724		2031/2032	192	31	224

<sup>\*</sup> Solar includes 0.5% per year degradation

While high and low solar portfolios were not evaluated compared to the base case for the 2017 IRP, volumes can certainly vary greatly, especially for solar resources. Solar projections may fall short of the base case if the competitive procurement for universal solar facilities, renewable energy procurement for large customers, and/or community solar programs of HB 589 don't materialize to their limits for some of the reasons mentioned earlier. On the upside, there is also the unknown of what occurs after HB 589 which is assumed to have no additional solar growth in the base case. While new policy may stimulate additional growth, a high sensitivity could occur given further improvements in the economics for solar through events such as high carbon dioxide emission regulations or taxes, lower solar capital costs, economical solar plus storage, and/or continuation of renewal subsidies, and/or stronger renewable energy mandates.

# c) Nuclear Assumptions

The Company views all of its existing nuclear plants as excellent candidates for license extensions, however to date, no existing nuclear plant operating licenses have been extended to operate from 60 years to 80 years in the United States. As such, there is uncertainty regarding license extension and any costs associated with continuing to operate for an additional 20 years. The Company is evaluating the feasibility of relicensing its existing nuclear resources. Given the uncertainty of license extension, the IRP Base Case does not assume license extension at this time, but rather considers relicensing as a sensitivity to the Base Case. The Company is evaluating the feasibility of relicensing its existing nuclear resources. A discussion of the Company's activities is included below.

# Subsequent License Renewal (SLR) for Nuclear Power Plants

License Renewal is governed by Title 10 of the Code of Federal Regulations (10 CFR) Part 54, Requirements for Renewal of Operating Licenses for Nuclear Power Plants. Additionally, the Nuclear Regulatory Commission (NRC) has issued regulatory guidance documents, specifically the Generic Aging Lessons Learned (GALL) Report (NUREG-1801) and NUREG-1800, Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (SRP-LR) as a basis for determining the adequacy of Aging Management Programs (AMPs). Currently the NRC has approved applications to extend licenses to 60 years for 87 nuclear units with applications for 5 nuclear units currently under review.

On August 29, 2014 the Nuclear Regulatory Commission issued a Staff Requirements Memorandum to provide the NRC staff with direction on SLR, i.e., extending nuclear power plant licenses to 80 years. Consistent with that direction, the NRC drafted guidance documents specifically applicable to SLR applications. In December 2015, NUREG-2191 (Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report) and NUREG-2192

(Standard Review Plan for the Review of Subsequent License Renewal (SRP-SLR) Applications for Nuclear Power Plants) were issued for public comment. Following an extensive comment process involving Duke Energy, the nuclear industry, and other stakeholders, the NRC published the final NUREGs in the Federal Register on July 14, 2017, thereby establishing formal regulatory guidance for SLR.

Dominion Energy announced on November 6, 2015 that they would pursue SLR for its Surry plant as a Lead Plant and submitted a letter of intent to the NRC. Exelon Corporation made a similar announcement for its Peach Bottom plant on June 7, 2016. Currently, Exelon is planning to submit the Peach Bottom SLR Application in mid-2018 while Dominion is targeting early 2019 for Surry. On May 17, 2017 a third utility notified the NRC of their intent to submit an SLR application by the end of 2017. The letter providing the notification was submitted requesting withholding information from public disclosure and as a result the name of the utility and licensee(s) is not publicly available.

Duke Energy is considering DEC's Oconee Nuclear Station (ONS) for submission of its first SLR application and extend the licenses to 80 years. The remaining nuclear sites will follow where the cost/benefit balance proves acceptable.

An Advance Funding was approved on May 12, 2016 for the development portion of the ONS SLR project. These funds are being used to further develop and refine the Project Plan including scope, schedule, cost, risk, and other project elements. At this time, a final decision to extend the ONS or any other Duke Energy nuclear power plants' operating licenses to 80 years has not been made.

### d) Combined Heat and Power

Combined Heat and Power (CHP) systems, also known as cogeneration, generate electricity and useful thermal energy in a single, integrated system. CHP is not a new technology, but an approach to applying existing technologies. Heat that is normally wasted in conventional power generation is recovered as useful energy, which avoids the losses that would otherwise be incurred from separate generation of heat and power. CHP incorporating a gas-fired combustion turbine (CT) and heat recovery steam generator (HRSG) is more efficient than the conventional method of producing power and usable heat separately with a CT/generator and a stand-alone steam boiler.

Duke Energy is exploring and working with potential customers with good base thermal loads on a regulated Combined Heat and Power offer. The CHP asset is included as part of Duke Energy's IRP as a placeholder for future projects as described below. The steam sales are credited back to the revenue requirement of the projects to reduce the total cost of this resource. Along with the potential to be a cost-competitive generation resource, CHP can result in CO<sub>2</sub> emission reductions,

and is a potential economic development opportunity for the state. In DEP, discussions with potential steam hosts are currently underway.

Projections for CHP have been included in the following quantities in this IRP:

2021: 22 MW (winter) / 20 MW (summer) 2022: 22 MW (winter) / 20 MW (summer)

As CHP development continues, future IRPs will incorporate additional CHP, as appropriate. Additional technologies evaluated as part of this IRP are discussed in Chapter 6.

# e) Resource Adequacy

# **Background**

Resource adequacy refers to the ability of the electric system to supply the aggregate electrical demand and energy requirements of the end-use customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements. Utilities require a margin of reserve generating capacity in order to provide reliable service. Periodic scheduled outages are required to perform maintenance, inspections of generating plant equipment, and to refuel nuclear plants. Unanticipated mechanical failures may occur at any given time, which may require shutdown of equipment to repair failed components. Adequate reserve capacity must be available to accommodate these unplanned outages and to compensate for higher than projected peak demand due to forecast uncertainty and weather extremes. The Company utilizes a reserve margin target in its IRP process to ensure resource adequacy. Reserve margin is defined as total resources minus peak demand, divided by peak demand. The reserve margin target is established based on probabilistic assessments as described below.

# 2016 Resource Adequacy Study

The Company retained Astrapé Consulting in 2016 to conduct an updated resource adequacy study.<sup>4</sup> The updated study was warranted due to two primary factors. First, the extreme weather experienced in the service territory in recent winter periods was so impactful to the system that additional review with the inclusion of recent years' weather history was warranted. Second, the system has added, and projects to add, a large amount of solar resources that provide meaningful

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<sup>&</sup>lt;sup>4</sup> Astrapé Consulting is an energy consulting firm with expertise in resource adequacy and integrated resource planning.

capacity benefits in the summer but very little capacity benefits in the winter. Solar resources contribute approximately 45% (DEP 44%, DEC 46%) of nameplate capacity at the time of the expected summer peak demand which typically occurs during afternoon hours. However, solar resources only contribute about 5% of nameplate capacity at the time of expected winter peak demand which typically occurs during early morning hours. As discussed in the Renewables section of this document, there is a potential to add significantly to the solar resources already incorporated on the system.

# Methodology

The 2016 resource adequacy study incorporated the uncertainty of weather, economic load growth, unit availability, and the availability of transmission and generation capacity for emergency assistance. Astrape analyzed the optimal planning reserve margin based on providing an acceptable level of physical reliability and minimizing economic costs to customers. The most common physical reliability metric used in the industry is to target a system reserve margin that satisfies the one day in 10 years Loss of Load Expectation (LOLE) standard. This standard is interpreted as one firm load shed event every 10 years due to a shortage of generating capacity. From an economic perspective, as planning reserve margin increases, the total cost of reserves increases while the costs related to reliability events decline. Similarly, as planning reserve margin decreases, the cost of reserves decreases while the costs related to reliability events increase, including the costs to customers for loss of power. Thus, there is an economic optimum point where the cost of additional reserves plus the cost of reliability events to customers is minimized.

#### Winter Capacity Planning

In the past, loss of load risk was typically concentrated during the summer months and a summer reserve margin target provided adequate reserves in the summer and winter. However, the incorporation of recent winter load data and the significant amount of solar penetration in the updated study, shows that the majority of loss of load risk is now heavily concentrated during the winter period. Since solar capacity contribution to peak is much greater in the summer compared to the winter, maintaining a summer reserve margin target would result in declining winter reserve margins over time due to the impact on summer versus winter reserves as solar capacity increases.

Thus, use of a summer reserve margin target will no longer ensure that adequate reserve levels are maintained in the winter, and winter load and resources now drive the timing need for new capacity additions. As a result, a winter planning reserve margin target is now needed to ensure that adequate resources are available throughout the year to meet customer demand.

It is noted that the primary driver for the shift to winter capacity planning is the high penetration of solar resources and the associated impact on summer versus winter reserves. Winter load volatility impacts LOLE and puts upward pressure on the reserve margin target; however, winter load volatility or the seasonality of summer versus winter peaks is not the driver for the shift to winter capacity planning.

#### Results

Based on results of the 2016 resource adequacy assessment, the Company has adopted a 17% minimum winter reserve margin target for scheduling new resource additions. The Company will continue to monitor its generation portfolio and other planning assumptions that can impact resource adequacy and initiate new studies as appropriate.

# **Adequacy of Projected Reserves**

DEP's resource plan reflects winter reserve margins ranging from approximately 17% to 26%. Reserves projected in DEP's IRP meet the minimum planning reserve margin target and thus satisfy the one day in 10 years LOLE criterion. Projected reserve margins exceed the minimum 17% winter target by 3% or more through the winter of 2018/2019 primarily due to lower load growth resulting from a slightly slower economic forecast as shown in recent IRPs, as well as a reduction in the wholesale load forecast. Projected reserve margins often exceed the minimum 17% winter target by 3% or more in years immediately following new resource additions. For example, reserves exceed the 17% minimum target by 3% or more in 2019/2020 as a result of the Asheville combined cycle addition. Reserves also exceed the minimum 17% target by 3% or more as a result of resource additions in 2021/2022, 2025/2026 and 2030/2031.

The IRP provides general guidance in the type and timing of resource additions. As previously noted, projected reserve margins will often be somewhat higher than the minimum target in years immediately following new generation additions since capacity is generally added in large blocks to take advantage of economies of scale. Large resource additions are deemed economic only if they have a lower Present Value Revenue Requirement (PVRR) over the life of the asset as compared to smaller resources that better fit the short-term reserve margin need. Reserves projected in the Company's IRP are appropriate for providing an economic and reliable power supply.

### NCUC 2016 IRP Order (Docket No. E-100, Sub 147)

The NCUC's June 27, 2017 Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans in Docket No. E-100, Sub 147 ("2016 IRP Order") concluded that the reserve margins included in the DEC and DEP IRPs are reasonable for planning purposes. However, the Commission also noted the following:

"Based on the foregoing, the comments of the parties, and the entire record in this proceeding, the Commission concludes that the reserve margins included in the utilities' IRPs are reasonable at this time for planning purposes. However, the Commission finds the analyses by the Public Staff and SACE's report by Mr. Wilson to be helpful regarding the question of whether DEC and DEP should move to a 17% winter reserve margin target. The Commission concludes that this move is not supported by the evidence in this proceeding. Nevertheless, the concerns outlined by the Public Staff, as well those discussed in Mr. Wilson's report, should be acknowledged by DEC and DEP and fully addressed in their 2017 IRP updates." (NCUC 2016 IRP Order, page 21).

"The analyses regarding reserve margin targets is extremely technical and complicated, made even more so by the advent of winter peaking on DEP and DEC's systems. The Commission relies heavily on the Public Staff's review and analysis to make its decisions on this subject. Therefore, the Commission determines that DEC and DEP should work with the Public Staff to address the Public Staff's and Mr. Wilson's reserve margin concerns and to implement changes as necessary to help ensure that the reserve margin target(s) are fully supported in future IRPs. Further, the Commission requests that Duke and the Public Staff file a joint report summarizing their review and conclusions within 150 days of the filing of Duke's 2017 IRP updates. In addition to addressing the reserve margin concerns identified by the Public Staff and Mr. Wilson, the report should clearly define the support and basis for the targeted reserve margins incorporated into the IRPs. If the parties cannot reach consensus, then the report should outline their differences and recommend a procedure for the Commission to pursue in reaching a conclusion about the reserve margins recommended by DEC and DEP in their IRPs.

In addition, the Commission concurs with the Public Staff's recommendation that in future IRPs the IOUs should evaluate the feasibility and benefits of advanced analytic techniques that incorporate sub-hourly modeling and more granular system performance data. Further, to the extent that these advanced analytics are available at reasonable cost, the IOUs should utilize these resources to provide better information and understanding on optimizing reserve margin needs, as well as overall system operations." (NCUC 2016 IRP Order, pages 22-23).

As ordered by the NCUC in its 2016 IRP Order, DEP and DEC acknowledge the concerns outlined by the Public Staff and Mr. Wilson's report and responded to these concerns in the Companies' detailed 2016 IRP Reply Comments regarding reserve margins and winter capacity planning. In addition, since the issuance of the 2016 IRP Order, the Companies have met with and initiated further discussions with the Public Staff to identify and address any remaining issues. The Companies and the Public Staff plan to file a joint report summarizing the on-going review and conclusions within 150 days of the filing of the Companies' 2017 IRP updates as directed by the NCUC.

# f) Fuel Costs

Similar to the 2015 IRP Update Report and the 2016 Biennial IRP Report, the first 10 years of natural gas prices are based on market data and the remaining years are based off of fundamental pricing. Specifically, DEP and DEC are using market based prices for the first 10 years of the planning period (2018 – 2027). Following the 10 years of market prices, the Companies transition to fundamental pricing over a 5 year period with 100% fundamental pricing in 2033 and beyond.

Market prices represent liquid, tradable gas prices offered at the present time, also called "future or forward prices." These prices represent an actual contractually agreed upon price that willing buyers and sellers agree to transact upon at a specified future date. As such, assuming market liquidity, they represent the market's view of prices for a given point in the future. Fundamental prices developed through external econometric modeling, on the other hand, represent a projection of fuel prices into the future taking into account changing supply and demand assumptions in the context of the changing dynamics of the external marketplace. The natural gas market is a liquid market with multiple buyers and sellers of natural gas that are willing to transact at longer transaction terms.

To provide price discovery and demonstrate continued market liquidity, the Company has purchased a fixed price natural gas forward swap for 2,500 MMBtu/day extending nearly ten years forward. It is worth noting that this purchase shows a continued decline in natural gas prices. The 10-year average price for the most recent purchase, executed on August 17, 2017, was lower than a similar purchase made in April of 2017 and lower than the prices used in the development of the 2016 IRP.

<sup>&</sup>lt;sup>5</sup> See DEC and DEP 2016 IRP Reply Comments, pages 10-24 and 48-53, filed May 10, 2017 in Docket No. E-100, Sub 147.

As in the 2016 Biennial IRP Report, coal prices continue to be based on 5 years of market data in the 2017 IRP. Following the 5 years of market prices, the Companies transition to fundamental pricing over a 5-year period with 100% fundamental pricing in 2028.

### g) Carbon Assumptions

On August 3, 2015, the Environmental Protection Agency (EPA) finalized a rule establishing CO<sub>2</sub> new source performance standards for pulverized coal (PC) and natural gas combined cycle (NGCC) electric generating units (EGUs) that initiate construction after January 8, 2014. The EPA finalized emission standards of 1,400 lb CO<sub>2</sub> per gross MWh of electricity generation for PC units and 1,000 lb CO<sub>2</sub> per gross MWh for NGCC units. The standard for PC units can only be achieved with carbon capture and sequestration technology. Numerous parties filed petitions with the U.S. Court of Appeals for the District of Columbia (D.C. Circuit) challenging the EPA's final emission standard for new PC units. Briefing in the case is complete, but oral argument is not currently scheduled. On April 28, 2017, the D.C. Circuit ordered that the litigation be suspended while it considers a motion from EPA to hold the case in abeyance. The court has not ruled on EPA's motion.

In response to a March 28, 2017 Executive Order, the EPA has undertaken a review of the rule to determine whether it should be suspended, revised, or rescinded. The rule remains in effect pending the outcome of litigation and EPA's review of the rule. The EPA has not announced a schedule for completing its review.

On August 3, 2015, the EPA finalized the Clean Power Plan (CPP), a rule to limit CO<sub>2</sub> emissions from existing fossil fuel-fired EGUs (existing EGUs are units that commenced construction prior to January 8, 2014). The CPP required states to develop and submit to EPA for approval implementation plans designed to achieve the required CO<sub>2</sub> emission limitations. The CPP required states to submit initial plans by September 6, 2016, and final plans by September 6, 2018. The CPP established two rate-based compliance pathways and two mass-based compliance pathways for states to choose from when developing their state implementation plans. The CPP required emission limitations to take effect beginning in 2022 and get gradually more stringent through 2030.

Numerous legal challenges to the CPP were filed with the DC Circuit. On February 9, 2016 the Supreme Court issued a stay in the case, halting implementation of the CPP through any final decision in the case by the Supreme Court. This means the CPP has no legal effect, and EPA cannot enforce any of the deadlines or rule requirements while the stay is in place.

Briefing of the case before the D.C. Circuit was completed in April, 2016. Oral argument before the full D.C. Circuit occurred on September 27, 2016. The D.C. Circuit has not issued a decision in the case. On April 28, 2017, the D.C. Circuit ordered that the litigation be suspended while it considers a motion from EPA to hold the case in abeyance. The court has not ruled on EPA's motion.

In response to a March 28, 2017 Executive Order, EPA initiated a review of the CPP to determine whether it should be suspended, revised, or rescinded. On June 8, 2017, the EPA sent a proposed rule to the Office of Management and Budget to repeal the CPP. Once interagency review is complete, EPA will issue the proposal for public comment. EPA has yet to announce what it will do regarding the possible replacement of the CPP with another rule. There is no schedule for EPA to issue the proposal or to determine what it will do regarding replacement of the CPP.

In light of the uncertainty of future carbon legislation, the Base Case assumes a carbon cost beginning in 2026.

### h) Transmission Planned or Under Construction

This section lists the planned transmission line additions. A discussion of the adequacy of DEP's transmission system is also included. Table 4-E lists the transmission line projects that are planned to meet reliability needs. This section also provides information pursuant to the North Carolina Utility Commission Rule R8-62.

**Table 4-E: DEP Transmission Line Additions** 

	Loca	<u>ntion</u>	Capacity	<u>Voltage</u>	
Year	<u>From</u>	<u>To</u>	MVA	KV	Comments
2018	Jacksonville Wallace		556	230	Uprate
2018	Roxboro Plant	Person (Middle)	1084	230	Uprate
2018	Roxboro Plant	Person (Hyco)	1084	230	Uprate
2018	Vanderbilt	West Asheville	307	115	Upgrade
2018	Richmond	Raeford	1195	230	Relocate, new

2018	Ft. Bragg Woodruff St.	Raeford	1195	230	Relocate, new
2019	Asheboro	Asheboro East North Line	307	115	Upgrade
2019	Sutton Plant	Castle Hayne North Line	239	115	Upgrade
2020	Cleveland Matthews Rd. Tap	Cleveland Matthews Rd	621	230	New
2020	Sutton Plant	Wallace	580	230	Uprate
2020	Jacksonville	Grants Creek	1195	230	New
2020	Newport	Harlowe	681	230	New

**Rule R8-62:** Certificates of environmental compatibility and public convenience and necessity for the construction of electric transmission lines in North Carolina.

- (p) Plans for the construction of transmission lines in North Carolina (161 kV and above) shall be incorporated in filings made pursuant to Commission Rule R8-60. In addition, each public utility or person covered by this rule shall provide the following information on an annual basis no later than September 1:
  - (1) For existing lines, the information required on FERC Form 1, pages 422, 423, 424, and 425, except that the information reported on pages 422 and 423 may be reported every five years.

Please refer to the Company's FERC Form No. 1 filed with NCUC in April 2017.

- (p) Plans for the construction of transmission lines in North Carolina (161 kV and above) shall be incorporated in filings made pursuant to Commission Rule R8-60. In addition, each public utility or person covered by this rule shall provide the following information on an annual basis no later than September 1:
  - (2) For lines under construction, the following:
    - a. Commission docket number;
    - b. Location of end point(s);

- c. Length;
- d. Range of right-of-way width;
- e. Range of tower heights;
- f. Number of circuits;
- g. Operating voltage;
- h. Design capacity;
- i. Date construction started;
- j. Projected in-service date;

### DEP has no transmission line projects, 161 kV and above, currently under construction.

- (p) Plans for the construction of transmission lines in North Carolina (161 kV and above) shall be incorporated in filings made pursuant to Commission Rule R8-60. In addition, each public utility or person covered by this rule shall provide the following information on an annual basis no later than September 1:
  - (3) For all other proposed lines, as the information becomes available, the following:
    - a. county location of end point(s);
    - b. approximate length;
    - c. typical right-of-way width for proposed type of line;
    - d. typical tower height for proposed type of line;
    - e. number of circuits;
    - f. operating voltage;
    - g. design capacity;
    - h. estimated date for starting construction (if more than 6 month delay from last report, explain); and
    - i. estimated in-service date (if more than 6-month delay from last report, explain). (NCUC Docket No. E-100, Sub 62, 12/4/92; NCUC Docket No. E-100, Sub 78A, 4/29/98.)

The following pages represent those projects in response to Rule R8-62 part (3).

# Richmond - Raeford 230 kV Line loop-in

Project Description: Loop-In the existing 230 kV transmission line from the Richmond 230 kV Substation in Richmond County to the Ft. Bragg Woodruff St 230 kV Substation in Cumberland County at Raeford 230 kV Substation in Hoke County.

- a. County location of end point(s); Hoke County
- b. Approximate length; 5 miles
- c. Typical right-of-way width for proposed type of line; 125 feet
- d. Typical tower height for proposed type of line; 80 -120 feet
- e. Number of circuits; 1
- f. Operating voltage; 230 kV
- g. Design capacity; 1195 MVA
- h. Estimated date for starting construction; July 2017
- i. Estimated in-service date; June 2018

# Ft. Bragg Woodruff St - Raeford 230 kV Line loop-in

Project Description: Loop-In the existing 230 kV transmission line from the Richmond 230 kV Substation in Richmond County to the Ft. Bragg Woodruff St 230 kV Substation in Cumberland County at Raeford 230 kV Substation in Hoke County.

- a. County location of end point(s); Hoke County
- b. Approximate length; 5 miles
- c. Typical right-of-way width for proposed type of line; 125 feet
- d. Typical tower height for proposed type of line; 80 120 feet
- e. Number of circuits; 1
- f. Operating voltage; 230 kV
- g. Design capacity; 1195 MVA
- h. Estimated date for starting construction; July 2017
- i. Estimated in-service date; June 2018

# Cleveland Matthews Road 230 kV Tap Line

Project Description: Construct new 230 kV transmission line from the Erwin-Selma 230 kV Line in Johnston County to the Cleveland Matthews Road 230 kV Substation in Johnston County.

- a. County location of end point(s); Johnston County
- b. Approximate length; 11.5 miles
- c. Typical right-of-way width for proposed type of line; 125 feet
- d. Typical tower height for proposed type of line; 80 120 feet
- e. Number of circuits; 1
- f. Operating voltage; 230 kV
- g. Design capacity; 621 MVA
- h. Estimated date for starting construction; June 2018
- i. Estimated in-service date; June 2020

# Jacksonville - Grants Creek 230 kV Line

Project Description: Construct new 230 kV transmission line from the Jacksonville 230 kV Substation in Onslow County to the Grants Creek 230 kV Substation in Onslow County.

- j. County location of end point(s); Onslow County
- k. Approximate length; 15 miles
- 1. Typical right-of-way width for proposed type of line; 125 feet
- m. Typical tower height for proposed type of line; 80 120 feet
- n. Number of circuits; 1
- o. Operating voltage; 230 kV
- p. Design capacity; 1195 MVA
- q. Estimated date for starting construction; January 2018
- r. Estimated in-service date; June 2020

# Newport - Harlowe 230 kV Line

Project Description: Construct new 230 kV transmission line from the Newport 230 kV Substation in Carteret County to the Harlowe 230 kV Substation in Carteret County.

- a. County location of end point(s); Carteret County
- b. Approximate length; 8 miles
- c. Typical right-of-way width for proposed type of line; 125 feet
- d. Typical tower height for proposed type of line; 80 120 feet
- e. Number of circuits; 1
- f. Operating voltage; 230 kV
- g. Design capacity; 681 MVA
- h. Estimated date for starting construction; March 2019
- i. Estimated in-service date; June 2020

#### **DEP Transmission System Adequacy**

DEP monitors the adequacy and reliability of its transmission system and interconnections through internal analysis and participation in regional reliability groups. Internal transmission planning looks 10 years ahead at available generating resources and projected load to identify transmission system upgrade and expansion requirements. Corrective actions are planned and implemented in advance to ensure continued cost-effective and high-quality service. The DEP transmission model is incorporated into models used by regional reliability groups in developing plans to maintain interconnected transmission system reliability. DEP works with DEC, North Carolina Electric Membership Corporation (NCEMC) and Electricities to develop an annual NC Transmission Planning Collaborative (NCTPC) plan for the DEP and DEC systems in both North and South Carolina. In addition, transmission planning is coordinated with neighboring systems including South Carolina Electric & Gas (SCE&G) and Santee Cooper under a number of mechanisms including legacy interchange agreements between SCE&G, Santee Cooper, DEP, and DEC.

The Company monitors transmission system reliability by evaluating changes in load, generating capacity, transactions and topography. A detailed annual screening ensures compliance with DEP's Transmission Planning Summary guidelines for voltage and thermal loading. The annual screening uses methods that comply with SERC Reliability Corporation (SERC) policy and North American Electric Reliability Corporation (NERC) Reliability Standards and the screening results identify the need for future transmission system expansion and upgrades. The transmission system is planned to ensure that no equipment overloads and adequate voltage is maintained to provide reliable service. The most stressful scenario is typically at projected peak load with certain equipment out of service. A thorough screening process is used to analyze the impact of potential equipment failures or other disturbances. As problems are identified, solutions are developed and evaluated.

Transmission planning and requests for transmission service and generator interconnection are interrelated to the resource planning process. DEP currently evaluates all transmission reservation requests for impact on transfer capability, as well as compliance with the Company's Transmission Planning Summary guidelines and the FERC Open Access Transmission Tariff (OATT). The Company performs studies to ensure transfer capability is acceptable to meet reliability needs and customers' expected use of the transmission system. Generator interconnection requests are studied in accordance with the Large and Small Generator Interconnection Procedures in the OATT and the North Carolina and South Carolina Interconnection Procedures.

SERC audits DEP every three years for compliance with NERC Reliability Standards. Specifically, the audit requires DEP to demonstrate that its transmission planning practices meet NERC standards and to provide data supporting the Company's annual compliance filing certifications. SERC conducted a NERC Reliability Standards compliance audit of DEP in December 2016. DEP received "No Findings" from the audit team.

DEP participates in a number of regional reliability groups to coordinate analysis of regional, sub-regional and inter-balancing authority area transfer capability and interconnection reliability. Each reliability group's purpose is to:

- Assess the interconnected system's capability to handle large firm and non-firm transactions for purposes of economic access to resources and system reliability;
- Ensure that planned future transmission system improvements do not adversely affect neighboring systems; and
- Ensure interconnected system compliance with NERC Reliability Standards.

Regional reliability groups evaluate transfer capability and compliance with NERC Reliability Standards for the upcoming peak season and five- and ten-year periods. The groups also perform computer simulation tests for high transfer levels to verify satisfactory transfer capability.

Application of the practices and procedures described above ensures that DEP's transmission system continues to provide reliable service to its native load and firm transmission customers.

#### 5. LOAD FORECAST

# Methodology

The Duke Energy Progress Spring 2017 Forecast provides projections of the energy and peak demand needs for its service area. The forecast covers the time period of 2018 – 2032 and represents the needs of the following customer classes:

- · Residential
- Commercial
- Industrial
- · Other Retail
- Wholesale

Energy projections are developed with econometric models using key economic factors such as income, electricity prices, and industrial production indices, along with weather and appliance efficiency trends. Population projections are used in the Residential customer model.

The economic projections used in the Spring 2017 Forecast are obtained from Moody's Analytics, a nationally recognized economic forecasting firm, and include economic forecasts for the Carolinas.

The Retail forecast consists of the three major classes: Residential, Commercial, and Industrial.

The Residential class sales forecast is comprised of two projections. The first is the number of residential customers, which is driven by population. The second is energy usage per customer, which is driven by variables such as weather, regional economic and demographic trends, electric prices, and efficiency trends.

The usage per customer forecast was derived using a Statistical Adjusted End-Use Model (SAE). This is a regression based framework that uses projected appliance saturation and efficiency trends developed by ITRON using Energy Information Agency (EIA) data. It incorporates naturally occurring efficiency trends and government mandates more explicitly than other models. The outlook for usage per customer is slightly negative through much of the forecast horizon, so most of the growth in sales is related to customer increases. The projected growth rate of the Residential class after considering all impacts (i.e., customer growth, energy efficiency, behind-the-meter solar, etc.) is 0.9% for the period 2018-2032.

The Commercial forecast also uses a SAE model in an effort to reflect naturally occurring as well as government mandated efficiency changes. The three largest sectors in the commercial class are Offices, Education and Retail. The projected growth rate of commercial in the Spring 2017 Forecast after considering all impacts, is 0.6% for the period 2018 to 2032.

The Industrial class is forecasted using a standard econometric model, with drivers such as industrial production and the price of electricity. Overall, Industrial sales are expected to grow 0.7% over the forecast horizon, after all impacts.

System peak demands were projected using the SAE approach in the Spring 2017 Forecast. The peak forecast was developed using a monthly SAE model, similar to the sales SAE models, which includes monthly appliance saturations and efficiencies, interacted with weather and the fraction of each appliance type that is in use at the time of the monthly peak. Over the forecast period, the summer peak demand is expected to grow 0.7% (after all impacts), while the winter peak demand is growing 0.7% (after all impacts).

Weather impacts are incorporated into the models by using Heating Degree Days with a base temperature of 59 and Cooling Degree Days with a base temperature of 65. The forecast of degree days is based on a 30-year average, which is updated every year.

# **Forecast Enhancements**

In 2013, The Company began using the statistically adjusted end use models (SAE) provided by ITRON to forecast sales and peaks. The end use models provide a better platform to recognize trends in equipment /appliance saturation and changes to efficiencies, and how those trends interact with heating, cooling, and "other" or non-weather related sales. The appliance saturation and efficiency trends are developed by ITRON using data from EIA. ITRON is a recognized firm providing forecasting services to the electric utility industry. These appliance trends are used in the residential and commercial sales models. In conjunction with peer utilities and ITRON, the company continually looks for refinements to its modeling procedures to make better use of the forecasting tools, and develop more reliable forecasts.

Each time the forecast is updated, the most currently available historical and projected data is used. The Spring 2017 forecast utilizes:

- Moody's Analytics January 2017 base economic projections.
- End use equipment and appliance indexes reflect the 2016 update of ITRON's end-use data, which is consistent with the Energy Information Administration's 2016 Annual Energy Outlook
- A calculation of normal weather using the period 1987-2016

Additional focus is being placed on the hourly shaping of sales, which plays a critical role in forecasting summer and winter peaks. While much of this work is ongoing and will be incorporated in the 2018 IRP's we continue to review the weather sensitivity of winter and summer peaks, as

well as the hourly shaping of behind the meter solar, utility sponsored energy efficiency programs (UEE), electric vehicles, and other variables.

Additional focus is also being placed on Duke's load research sample data, to gain a better understanding of historical hourly demand trends, winter and summer peaking characteristics by customer class, and minimums by customer class, in our continuous effort to improve forecast accuracy.

# **Assumptions**

Below are the projected average annual growth rates of several key drivers from DEP's Spring 2017 Forecast.

	2018-2032
Real Income	2.7%
Manufacturing Industrial Production Index (IPI)	1.3%
Population	1.6%

In addition to economic, demographic, and efficiency trends, the forecast also incorporates the expected impacts of utility sponsored energy efficient programs, as well as projected effects of electric vehicles and behind the meter solar technology.

#### Wholesale

The wholesale contracts are included in the forecasted sales and peaks in the following tables. For a complete description of the Wholesale forecast, please see Chapter 11.

#### **Historical Values**

It should be noted that long-term decline of the Textile industry and the recession of 2008-2009 have had an adverse impact on DEP sales. The worst of the Textile decline appears to be over, and Moody's Analytics expects the Carolina's economy to show solid growth going forward.

Tables 5-A & 5-B below the present history of DEP customers and actual sales are given.

Table 5-A Retail Customers (Thousands, Annual Average)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg Annual Growth Rate
Residential	1,174	1,195	1,207	1,216	1,221	1,231	1,242	1,257	1,275	1,292	1.1%
Commercial	214	216	215	216	217	219	222	222	226	229	0.8%
Industrial	4	4	5	5	4	4	4	4	4	4	-0.1%
Other	2	2	2	2	2	2	2	2	2	2	-4.2%
Total	1,394	1,417	1,429	1,439	1,445	1,457	1,470	1,486	1,507	1,527	1.0%

Table 5-B Retail Sales (GWh sold-Year ended December 31st)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg. Annual Growth Rate
Residential	16,259	17,200	17,000	17,117	19,108	17,764	16,663	18,201	17,954	17,686	1.1%
Commercial	13,358	14,033	13,940	13,639	14,184	13,709	13,581	13,887	14,039	14,082	0.6%
Industrial	12,416	11,883	11,216	10,375	10,677	10,573	10,508	10,321	10,288	10,274	-2.0%
Military & Other	1,419	1,438	1,467	1,497	1,574	1,591	1,602	1,614	1,597	1,563	1.1%
Total Retail	43,451	44,553	43,622	42,628	45,544	43,637	42,355	44,023	43,876	43,606	0.1%
Wholesale	12,231	12,656	12,868	12,772	12,772	12,267	12,676	13,578	15,782	18,676	5.1%
Total System	55,682	57,209	56,489	55,400	58,316	55,903	55,031	57,601	59,658	62,282	1.3%

Note: The values in Table 5-B are not weather adjusted.

# **Utility Energy Efficiency**

Utility Energy Efficiency Programs (UEE) continues to have a large impact in the acceleration of the adoption of energy efficiency. When including the energy and peak impacts of UEE, careful attention must be paid to avoid the double counting of UEE efficiencies with the naturally occurring efficiencies included in the SAE modeling approach. To ensure there is not a double counting of these efficiencies, the forecast "rolls off" the UEE savings at the conclusion of its measure life. For example, if the accelerated benefit of a residential UEE program is expected to have occurred 7 years before the energy reduction program would have been otherwise adopted, then the UEE effects after year 7 are subtracted ("rolled off") from the total cumulative UEE. With the SAE models framework, the naturally occurring appliance efficiency trends replace the rolled off UEE benefits serving to continue to reduce the forecasted load resulting from energy efficiency adoption.

# Table 5-C below illustrates this process:

- Column A: Total energy before reduction of future UEE
- Column B: Historical UEE Roll-Off
- Column C: Forecasted UEE Incremental Roll-On
- Column D: Forecasted UEE Incremental Roll-Off
- Column E: UEE amount to subtract from Column A
- Column F: Total energy after incorporating UEE (column A less column E)

Table 5-C UEE Program Life Process (GWh)

	Forecast	Historical UEE	Forecasted UEE	Forecasted UEE	UEE to Subtract	Forecast
	Before UEE	Roll-Off	Incremental Roll-On	Incremental Roll Off	From Forecast	After UEE
2017	64,361	0	207	0	207	64,154
2018	64,966	5	379	0	379	64,592
2019	65,609	20	554	0	554	65,075
2020	65,464	51	722	0	722	64,794
2021	65,738	106	883	0	883	64,961
2022	66,148	181	1,045	0	1,045	65,284
2023	66,126	269	1,209	2	1,209	65,188
2024	66,930	360	1,361	4	1,361	65,933
2025	67,551	442	1,507	12	1,507	66,498
2026	68,235	505	1,662	32	1,662	67,110
2027	68,938	549	1,841	49	1,841	67,696
2028	69,721	576	2,220	245	2,220	68,323
2029	70,350	589	3,126	1,001	3,126	68,814
2030	70,954	596	3,288	1,054	3,288	69,317
2031	71,593	598	3,412	1,095	3,412	69,873
2032	71,660	598	3,511	1,128	3,511	69,874

## Results

A tabulation of the utility's forecasts for 2018-2032, including peak loads for summer and winter seasons of each year and annual energy forecasts, both with and without the impact of UEE programs, are shown below in Tables 5-F and 5-G.

Load duration curves, with and without UEE programs, follow Tables 5-F and 5-G, and are shown as Charts 5-A and 5-B.

The tables below show the results of the forecast:

- Table 5-D: Total retail customers by class
- Table 5-E: Retail sales (at the meter) after the impacts of energy efficiency
- Table 5-F: Forecasted system summer peak, winter peak, and sales *before* including the impact of utility sponsored energy efficiency programs (at generation)
- Chart 5-A: Load duration curve *before* including the impact of utility sponsored energy efficiency programs
- Table 5-G: Forecasted system summer peak, winter peak, and sales *after* including the impact of utility sponsored energy efficiency programs (at generation)

• Chart 5-B: Load duration curve – *after* including the impact of utility sponsored energy efficiency programs

Table 5-D Retail Customers (Thousands, Annual Average)

	Residential	Commercial	Industrial	Other	Retail
	Customers	Customers	Customers	Customers	Customers
2018	1,324	234	4	1	1,563
2019	1,340	236	4	1	1,581
2020	1,356	237	4	1	1,599
2021	1,373	239	4	1	1,617
2022	1,389	240	4	1	1,635
2023	1,406	242	4	1	1,653
2024	1,423	244	4	1	1,672
2025	1,441	245	4	1	1,691
2026	1,458	246	3	1	1,710
2027	1,476	248	3	1	1,729
2028	1,494	249	3	1	1,748
2029	1,512	251	3	1	1,768
2030	1,531	252	3	1	1,787
2031	1,549	253	3	1	1,807
2032	1,568	255	3	1	1,828
Avg. Annual Growth Rate	1.2%	0.6%	-1.8%	0.0%	1.1%

Table 5-E Retail Sales (GWh Sold - Years Ended December 31)

	Residential	Commercial	Industrial	Other	Retail
	Gwh	Gwh	Gwh	Gwh	Gwh
2018	17,925	14,078	10,464	1,556	44,024
2019	18,036	14,125	10,555	1,549	44,266
2020	18,168	14,198	10,628	1,547	44,541
2021	18,314	14,240	10,668	1,546	44,767
2022	18,473	14,305	10,706	1,544	45,028
2023	18,661	14,393	10,813	1,541	45,410
2024	18,869	14,513	10,915	1,540	45,837
2025	19,066	14,611	10,991	1,539	46,206
2026	19,271	14,731	11,049	1,538	46,590
2027	19,460	14,833	11,095	1,538	46,925
2028	19,652	14,939	11,141	1,538	47,270
2029	19,823	15,011	11,200	1,539	47,573
2030	20,005	15,066	11,281	1,540	47,892
2031	20,206	15,129	11,378	1,540	48,254
2032	20,423	15,213	11,470	1,541	48,647
Avg. Annual Growth Rate	0.9%	0.6%	0.7%	-0.1%	0.7%

Table 5-F Load Forecast without Energy Efficiency Programs (at Generation)

YEAR	SUMMER	WINTER	ENERGY
	(MW)	(MW)	(GWH)
2018	13,078	13,310	64,971
2019	13,217	13,429	65,629
2020	13,264	13,446	65,516
2021	13,334	13,489	65,844
2022	13,451	13,596	66,329
2023	13,504	13,620	66,395
2024	13,662	13,788	67,290
2025	13,810	13,897	67,993
2026	13,977	14,041	68,740
2027	14,144	14,186	69,487
2028	14,311	14,352	70,297
2029	14,471	14,480	70,939
2030	14,617	14,613	71,550
2031	14,775	14,756	72,191
2032	14,928	14,912	72,866
Avg. Annual Growth Rate	0.9%	0.8%	0.8%

**Chart 5-A** Load Duration Curve without Energy Efficiency Programs (at Generation)

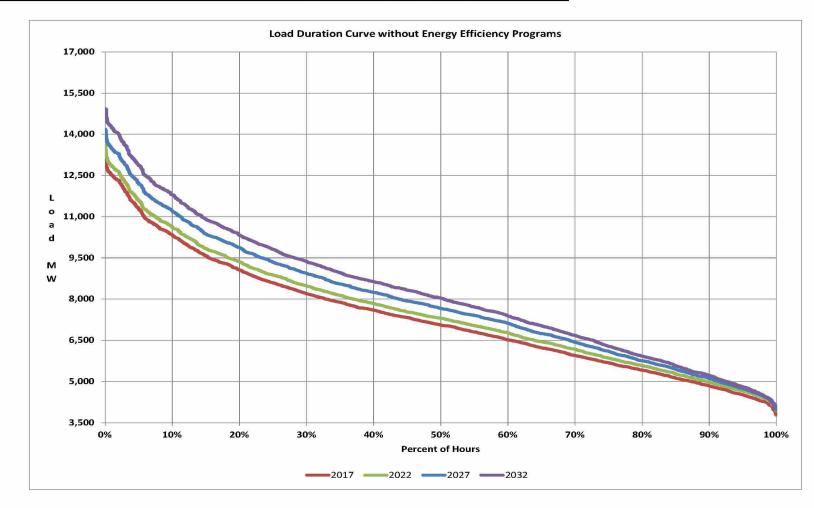
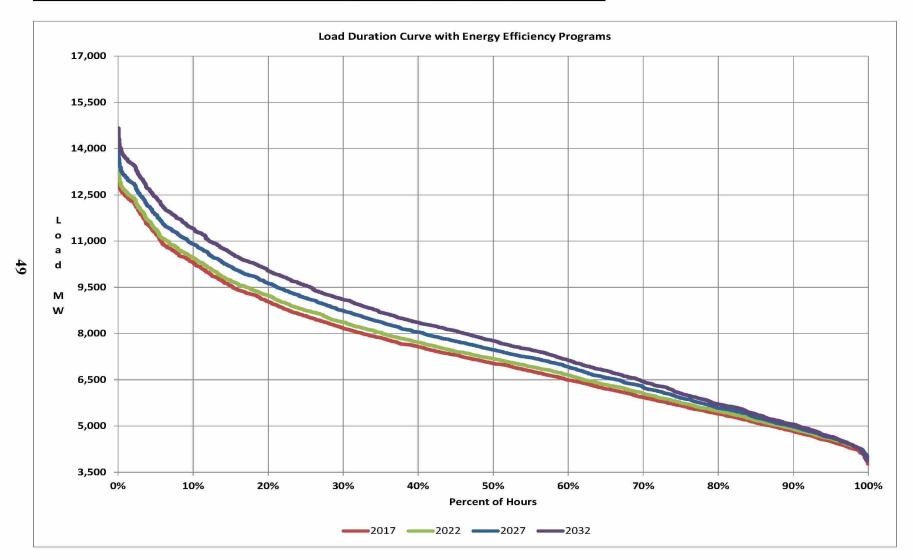


Table 5-G Load Forecast with Energy Efficiency Programs (at Generation)

YEAR	SUMMER	WINTER	ENERGY
	(MW)	(MW)	(GWH)
2018	12,990	13,273	64,592
2019	13,085	13,383	65,075
2020	13,091	13,384	64,794
2021	13,120	13,410	64,961
2022	13,198	13,493	65,284
2023	13,210	13,500	65,188
2024	13,332	13,654	65,933
2025	13,445	13,748	66,498
2026	13,578	13,877	67,110
2027	13,706	14,006	67,696
2028	13,833	14,153	68,323
2029	13,957	14,265	68,814
2030	14,074	14,386	69,317
2031	14,208	14,520	69,874
2032	14,341	14,669	70,483
Avg. Annual			
Growth Rate	0.7%	0.7%	0.6%

**Chart 5-B** Load Duration Curve with Energy Efficiency Programs (at Generation)



# 6. DEVELOPMENT OF RESOURCE PLAN

The following section details the Company's expansion plan and resource mix that is required to meet the needs of DEP's customers over the next 15 years. The section also includes a discussion of the various technologies considered during the development of the IRP, as well as, a summary of the resources required in the "No Carbon" sensitivity case.

Tables 6-A and 6-B represent the winter and summer Load, Capacity, and Reserves tables for the Base Case.

# Winter Projections of Load, Capacity, and Reserves for Duke Energy Progress 2017 Annual Plan

	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32
Load Forecast	13,310	40 400	13,446	13,489	13,596	13,620	13,788	40.007	44044	44400	44050	44.400	44.040	44750	44040
Duke System Peak     Firm Sale	15,310	13,429 150	15,446	15,489	15,596	15,620	15,768	13,897 0	14,041 0	14,186 0	14,352 0	14,480 0	14,613 0	14,756 0	14,912 0
3 Cumulative New EE Programs	(37)	(45)	(62)	(79)	(103)	(120)	(135)	(149)	(163)	(180)	(199)	(215)	(227)	(236)	(243)
3 Curnulative New EE Programs	(37)	(45)	(02)	(79)	(103)	(120)	(135)	(149)	(103)	(100)	(199)	(215)	(221)	(230)	(243)
4 Adjusted Duke System Peak	13,423	13,533	13,534	13,560	13,643	13,650	13,804	13,748	13,877	14,006	14,153	14,265	14,386	14,520	14,669
Existing and Designated Resources															
5 Generating Capacity	13,937	13,981	13,991	14,173	13,597	13,597	13,597	13,609	13,609	13,609	13,609	13,616	13,616	13,616	12,819
6 Designated Additions / Uprates	108	10	566	4	0	0	12	0	0	0	239	0	0	0	0
7 Retirements / Derates	(64)	0	(384)	(580)	0	0	0	0	0	0	(232)	0	0	(797)	0
8 Cumulative Generating Capacity	13,981	13,991	14,173	13,597	13,597	13,597	13,609	13,609	13,609	13,609	13,616	13,616	13,616	12,819	12,819
Purchase Contracts															
9 Cumulative Purchase Contracts	2,029	2,043	1,750	1,753	1,190	815	554	554	553	553	546	544	543	537	537
Non-Compliance Renewable Purchases	134	148	168	173	121	123	122	121	121	120	117	115	114	108	108
Non-Renewables Purchases	1,895	1,895	1,582	1,580	1,070	692	432	432	432	432	429	429	429	429	429
	.,	,	- 1,	.,,											
Undesignated Future Resources															
10 Nuclear															
11 Combined Cycle					1.282				1 282					1.282	
12 Combustion Turbine															
13 Solar															
Renewables															
13 Cumulative Renewables Capacity	244	202	204	210	137	137	146	138	136	135	134	130	123	116	116
14 Combined Heat & Power	0	202	204	22	22	0	0	0	0	0	0	0	0	0	0
14 Combined Reat & Fower	U	U	Ü	22	22	U	U	U	U	U	U	U	U	U	U
15 Cumulative Production Capacity	16,254	16,236	16,127	15,582	16,250	15,874	15,634	15,626	16,906	16,905	16,903	16,897	16,890	17,361	17,361
Demand Side Management (DSM)															
16 Cumulative DSM Capacity	495	510	524	539	553	559	563	566	570	573	577	580	583	586	589
17 Cumulative Capacity w/ DSM	16,750	16,746	16,652	16,121	16,803	16,433	16,197	16,192	17,476	17,478	17,480	17,477	17,472	17,947	17,950
Reserves w/ DSM															
18 Generating Reserves	3,326	3.213	3.118	2,560	3.160	2.783	2.393	2,445	3.598	3,472	3,327	3,212	3.086	3,427	3.281
To Generaling Inciseives	0,020	0,210	5,110	2,000	3,100	2,703	2,000	2,440	3,530	5,412	3,327	5,212	3,000	0,421	5,201
19 % Reserve Margin	25%	24%	23%	19%	23%	20%	17%	18%	26%	25%	24%	23%	21%	24%	22%

# Summer Projections of Load, Capacity, and Reserves for Duke Energy Progress 2017 Annual Plan

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Load Forecast															
1 Duke System Peak	13,078	13,217	13,264	13,334	13,451	13,504	13,662	13,810	13,977	14,144	14,311	14,471	14,617	14,775	14,928
2 Firm Sale	150	150	150	150	150	150	150	0	0	0	0	0	0	0	0
3 Cumulative New EE Programs	(88)	(132)	(173)	(213)	(253)	(294)	(330)	(366)	(399)	(437)	(478)	(514)	(543)	(567)	(587)
4 Adjusted Duke System Peak	13,140	13,235	13,241	13,270	13,348	13,360	13,482	13,445	13,578	13,706	13,833	13,957	14,074	14,208	14,341
Existing and Designated Resources															
5 Generating Capacity	12,803	12,760	12,764	12,883	12,453	12,453	12,461	12,461	12,461	12,461	12,463	12.508	12,508	11,767	11,767
6 Designated Additions / Uprates	5	4	497	0	0	8	0	0	0	2	221	0	0	0	0
7 Retirements / Derates	(48)	0	(378)	(430)	0	0	0	0	0	0	(176)	0	(741)	0	0
8 Cumulative Generating Capacity	12,760	12,764	12,883	12,453	12,453	12,461	12,461	12,461	12,461	12,463	12,508	12,508	11,767	11,767	11,767
Purchase Contracts															
9 Cumulative Purchase Contracts	2,406	2,358	2,390	1,940	1,597	1.614	1,389	1,385	1,380	1,375	1.364	1.358	1,353	1.347	1,347
Non-Compliance Renewable Purchases	659	779	957	996	979	996	991	986	981	977	969	962	957	951	951
Non-Renewables Purchases	1.747	1.579	1.434	944	618	618	398	398	398	398	395	395	395	395	395
	100	(1872.2)	44 1501												
Undesignated Future Resources															
10 Nuclear															
11 Combined Cycle					1.151				1,151					1.151	
12 Combustion Turbine															
13 Solar															
Renewables															
13 Cumulative Renewables Capacity	674	630	649	702	675	732	808	812	806	802	797	790	780	773	773
14 Combined Heat & Power	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
15 Cumulative Production Capacity	15,840	15,751	15,922	15,115	15,916	15,999	15,850	15,848	16,989	16,982	17,011	16,998	16,242	17,379	17,379
Demand Side Management (DSM)															
16 Cumulative DSM Capacity	938	980	1,018	1,050	1,071	1,076	1,079	1,083	1,087	1,090	1,093	1,097	1,100	1,104	1,107
17 Cumulative Capacity w/ DSM	16,778	16,731	16,940	16,166	16,988	17,075	16,929	16,931	18,075	18,072	18,105	18,094	17,342	18,483	18,487
17 Cumulative Capacity W/ DSM	10,770	10,751	10,340	10,100	10,300	17,073	10,323	10,331	10,013	10,012	10,103	10,034	17,042	10,400	10,401
Reserves w/ DSM															
18 Generating Reserves	3,638	3,496	3,699	2,895	3,639	3,715	3,447	3,486	4,497	4,365	4,271	4,137	3,268	4,275	4,146
19 % Reserve Margin	28%	26%	28%	22%	27%	28%	26%	26%	33%	32%	31%	30%	23%	30%	29%

# **DEP - Assumptions of Load, Capacity, and Reserves Table**

The following notes are numbered to match the line numbers on the Winter Projections of Load, Capacity, and Reserves table. All values are MW (winter ratings) except where shown as a Percent.

- 1. Planning is done for the peak demand for the Duke Energy Progress System.
- 2. Firm sale of 150 MW through 2024.
- 3. Cumulative energy efficiency and conservation programs (does not include demand response programs).
- 4. Peak load adjusted for firm sales and cumulative energy efficiency.
- 5. Existing generating capacity reflecting designated additions, planned uprates, retirements and derates as of July 1, 2017.
- 6. Capacity Additions include:

Planned nuclear uprates totaling 44 MW in the 2017-2027 timeframe.

100 MW Sutton Blackstart combustion turbine addition in July 2017.

560 MW Asheville combined cycle addition in November 2019.

Potential 235 MW Asheville combustion turbine addition in December 2027.

7. Planned Retirements include:

384 MW Asheville Coal Units 1-2 in November 2019.

64 MW Sutton CT Units 2A and 2B in July 2017.

580 MW Darlington CT Units 1-8 and 10 by 2020.

232 MW Blewett CT Units 1-4 and Weatherspoon CT units 1-4 in December 2027.

Planning assumptions for nuclear stations assume retirement at the end of their current license extension.

797 MW Robinson 2 in 2030.

# DEP - Assumptions of Load, Capacity, and Reserves Table (cont.)

All retirement dates are subject to review on an ongoing basis. Dates used in the 2017 IRP are for planning purposes only, unless already planned for retirement.

- 8. Sum of lines 5 through 7.
- 9. Cumulative Purchase Contracts have several components:

Purchased capacity from PURPA Qualifying Facilities.

Additional line items are shown under the total line item to show the amounts of renewable and traditional QF purchases.

Renewables in these line items are not used for NC REPS compliance.

10. New nuclear resources economically selected to meet load and minimum planning reserve margin.

Capacity must be on-line by June 1 to be included in available capacity for the summer peak of that year and by December 1 to be included in available capacity for the winter peak of that year.

No new nuclear resources were selected in the Base Case in the 15 year study period.

11. New combined cycle resources economically selected to meet load and minimum planning reserve margin.

Capacity must be on-line by June 1 to be included in available capacity for the summer peak of that year and by December 1 to be included in available capacity for the winter peak of that year.

Addition of 1,282 MW of combined cycle capacity in December of 2021, 2025 and 2031.

12. New combustion turbine resources economically selected to meet load and minimum planning reserve margin.

Capacity must be on-line by June 1 to be included in available capacity for the summer peak of that year and by December 1 to be included in available capacity for the winter peak of that year.

No new CT resources were selected in the Base Case in the 15 year study period.

# DEP - Assumptions of Load, Capacity, and Reserves Table (cont.)

- 13. Resources to comply with NC REPS and HB 589 along with solar customer product offerings such as Green Source and SC DER Program were input as existing resources.
- 14. New 21.7 MW (winter) combined heat and power units included in December of 2020 and 2021.
- 15. Sum of lines 8 through 14.
- 16. Cumulative Demand Side Management programs including load control and DSDR.
- 17. Sum of lines 15 and 16.
- 18. The difference between lines 17 and 4.
- Reserve Margin = (Cumulative Capacity-System Peak Demand)/System Peak Demand
   Line 18 divided by Line 4.

Minimum target planning reserve margin is 17%.

#### **Technologies Considered**

Similar to the 2016 IRP, the Company considered a diverse range of technology choices utilizing a variety of different fuels in order to meet future generation needs in the 2017 IRP. The Company conducted an economic screening analysis of various technologies as part of the 2017 IRP, with changes from the 2016 IRP highlighted below.

# **Dispatchable (Winter Ratings)**

- Base load 782 MW Ultra-Supercritical Pulverized Coal with CCS
- Base load 557 MW 2x1 IGCC with CCS
- Base load 2 x 1,117 MW Nuclear Units (AP1000)
- Base load 638 MW 1x1x1 Advanced Combined Cycle (No Inlet Chiller and Fired)
- Base load 1,281 MW 2x2x1 Advanced Combined Cycle (No Inlet Chiller and Fired)
- Base load 21.7 MW Combined Heat & Power
- Peaking/Intermediate 195 MW 4 x LM6000 Combustion Turbines (CTs)
- Peaking/Intermediate 200 MW, 12 x Reciprocating Engine Plant
- Peaking/Intermediate 549 MW 2 x G/H-Class Combustion Turbines (CTs)
- Peaking/Intermediate 740 MW 2 x J-Class Combustion Turbines (CTs)
- Peaking/Intermediate 942 MW 4 x 7FA.05 Combustion Turbines (CTs)
- Renewable 5 MW / 2.5 MWh Li-ion Battery
- Renewable 5 MW / 20 MWh Li-ion Battery
- Renewable 2 MW Solar PV plus 2 MW / 8 MWh Li-ion Battery

#### Non-Dispatchable (Nameplate)

- Renewable 5 MW Landfill Gas
- Renewable 150 MW Wind On-Shore
- Renewable 5 MW Solar PV, Fixed-tilt (FT)
- Renewable 50 MW Solar PV, Fixed-tilt (FT)
- Renewable 50 MW Solar PV, Single Axis Tracking (SAT)
- Renewable 1300 MW Pumped Storage Brownfield
- Renewable 5 MW Landfill Gas

Combined Cycle base capacities and technologies: Based on proprietary third party engineering studies, the 2x2x1 Advanced CC saw an increase in base load of 62 MW. The older version base 2x1 CC and the 3x1 Advanced CC were not considered in the updated IRP. However, as the Company begins the process of evaluating particular technologies for future undesignated generation needs, these technologies, along with other new technologies, may be considered based on factors such as generation requirements, plot size, new environmental regulations, etc.

Combustion Turbine base capacities and technologies: Based on proprietary third party engineering studies, the F-Frame CT technology saw a slight increase in winter capacity. The LM6000 CTs were not considered in the updated IRP. However, as the Company begins the process of evaluating particular technologies for future undesignated generation needs, these technologies, along with other new technologies, may be considered based on factors such as generation requirements, plot size, new environmental regulations, etc.

**CHP:** As mentioned previously, two 21.7 MW (winter) blocks of Combined Heat & Power are considered in the 2017 IRP and are included as resources for meeting future generation needs. While no contracts have yet been signed for DEP, discussions with potential steam hosts are currently underway. As CHP continues to be implemented, future IRP processes will incorporate additional CHP as appropriate.

**Energy Storage:** Energy storage solutions, in particular batteries, are becoming an increasing necessity for support of grid services, including frequency regulation, solar smoothing, and/or energy shifting from localized renewable energy sources with a high incidence of intermittency (i.e. solar and wind). These technologies are capable of providing resiliency benefits and economic value for the utility and its customers. Duke Energy owns and operates several battery projects that have been in operation since 2011 through its Emerging Technology Office, mainly in support of regulating grid frequency and voltage, integrating renewables and energy time shifting.

Duke Energy is committed to supporting emerging technologies that can complement more conventional technologies and is in a prime position to optimize the investment in batteries by dispatching them in a manner that directly benefits customers. The Company intends to begin investing in multiple systems dispersed throughout its North and South Carolina service territory that will be located on property owned by the Company or leased from its customers. These deployments will allow Duke Energy and its customers to evaluate the costs and impacts of batteries deployed at a significant scale, explore the nature of new offerings desired by customers, and fill knowledge gaps. The goals and Commission Order within the Western Carolinas Modernization Project will also be supported by the battery deployment plan.<sup>6</sup>

Duke Energy Progress currently has one battery constructed and two in the interconnection queue in the western Carolinas region.

**Pumped Storage Hydropower (PSH):** PSH is another form of Energy Storage and is the only conventional, mature, commercial, utility-scale bulk electricity storage option available currently.

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<sup>&</sup>lt;sup>6</sup> Docket No. E-2, Sub 1089

This technology consumes off-peak electricity by pumping water from a lower reservoir to an upper reservoir. When the electric grid needs more electricity and when electricity prices are higher, water is released from the upper reservoir. As the water flows from the upper reservoir to the lower reservoir, it goes through a hydroelectric turbine to generate electricity. Many operational pumped storage hydropower plants are providing electric reliability and reserves for the electric grid in high demand situations.

PSH can provide a high amount of power because its only limitation is the capacity of the upper reservoir. Typically, these plants can be as large as 4,000 MW, and have an efficiency of 76% - 85% (Electric Power Research Institute (EPRI), 2012). Therefore, this technology is effective at meeting electric demand and transmission overload by shifting, storing, and producing electricity.

This is important because an increasing supply of intermittent renewable energy generation such as solar will cause challenges to the electric grid. PSH installations are greatly dependent on regional geography and face several challenges including: environmental impact concerns, a long permitting process, and a relatively high initial capital cost. Duke Energy currently has two PSH assets, Bad Creek Reservoir and Jocassee Hydro in the DEC territory with an approximate combined generating capacity of 2,140 MW.

# **Expansion Plan and Resource Mix**

A tabular presentation of the 2017 Base Case resource plan represented in the above LCR table is shown below:

Table 6-C DEP Base Case Resources—Winter (with CO<sub>2</sub>)

	Duke Energy Progress Resource Plan <sup>(1)</sup> Base Case - Winter									
Year	I	Resource	MW							
2018	Nuclear Uprates	Sutton Blackstart CT	8	100						
2019	Nuc	clear Uprates		10						
2020	Nuclear Uprates	Asheville CC	6	560						
2021	СНР	Nuclear Uprates	22	4						
2022	СНР	New CC	22	1282						
2023										
2024	Nuc	clear Uprates	12							
2025										
2026		New CC		1282						
2027										
2028	Nuclear Uprates	Potential Asheville CT	4	235						
2029										
2030										
2031		New CC	1282							
2032										

Notes: (1) Table includes both designated and undesignated capacity additions Future additions of renewables, EE and DSM not included

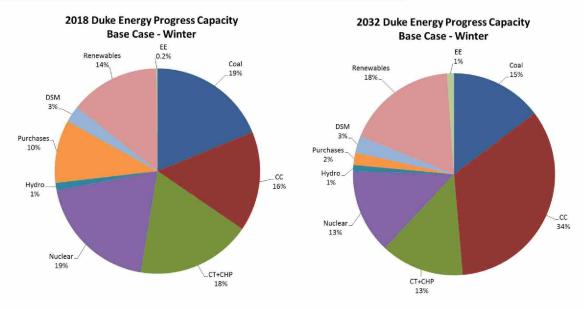
Table 6-D DEP Base Case Resources (with CO<sub>2</sub>) Cumulative Winter Totals

DEP Base Case Resources Cumulative Winter Totals - 2018 - 2032

Nuclear	44
CC	4406
CT	335
CHP	44
Total	4829

The following charts illustrate both the current and forecasted capacity by fuel type for the DEP system, as projected in the Base Case. As demonstrated in Chart 6-A, the capacity mix for the DEP system changes with the passage of time. In 2032, the Base Case projects that DEP will have a smaller percentage reliance on coal, nuclear and external purchases, and a higher reliance on gas-fired resources, renewable resources and EE as compared to the current state.

Chart 6-A 2018 & 2032 Base Case Winter Capacity Mix



As discussed earlier, the Company developed three additional cases which represent variations of the Base Case. The expansion plans for these cases are shown below in Table 6-E.

A description of these additional cases are:

- "No Carbon Case" No carbon legislation and without nuclear relicensing.
- "Carbon and Nuclear Relicensing Case" Carbon legislation in 2026 and with nuclear relicensing.
- "No Carbon with Nuclear Relicensing Case" No carbon legislation and with nuclear relicensing.

A representation of the expansion plans for these cases is shown in Table 6-E.

**Table 6-E** Additional Cases - Winter

Duke Energy Progress Resource Plans Additional Cases - Winter (Resource - MW)										
Year	No Carbon Case w/o Relicensing Case		Carbon w/ Relicensing Case		No Carbon w/ Relicensing Case					
2018	Nuclear Uprates - 8	utton Blackstart CT - 100	Nuclear Uprates - 8	Sutton Blackstart CT - 100	Nuclear Uprates - 8	Sutton Blackstart CT - 100				
2019	Nuclear Uprates - 10		Nuclear Uprates - 10		Nuclear Uprates - 10					
	Nuclear Uprates - 6		Nuclear Uprates - 6		Nuclear Uprates - 6					
2020	A sheville CC - 560		Asheville CC - 560		Asheville CC - 560					
2021	CHP - 22		CHP - 22		CHP - 22					
	Nuclear Uprates - 4		Nuclear Uprates - 4		Nuclear Uprates - 4					
2022	CHP - 22		CHP - 22		CHP - 22					
	New CC - 1282		New CC - 1282		New CC - 1282					
2023										
2024	Nuclear Uprates - 12		Nuclear Uprates - 12		Nuclear Uprates - 12					
2025										
2026	New CT - 471		New CC - 1282		New CT - 471					
2027										
2028	Nuclear Uprates - 4	New CT - 471	Nuclear Uprates - 4	New CT - 235	Nuclear Uprates - 4	New CT - 471				
2029										
2030										
2031	New CC - 1282				New CT - 471					
2032										

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# 7. SHORT-TERM ACTION PLAN

The Company's Short-Term Action Plan, which identifies accomplishments in the past year and actions to be taken over the next five years, is summarized below:

#### Continued Reliance on EE and DSM Resources

The Company is committed to continuing to grow the amount of EE and DSM resources utilized to meet customer growth. The following are the ways in which DEP will increase these resources:

- Continue to execute the Company's EE and DSM plan, which includes a diverse portfolio of EE and DSM programs spanning the residential, commercial, and industrial classes.
- Continue on-going collaborative work to develop and implement additional cost-effective EE and DSM products and services.
- Continue to seek enhancements to the Company's EE/DSM portfolio by: (1) adding new or expanding existing programs to include additional measures, (2) program modifications to account for changing market conditions and new measurement and verification (M&V) results and (3) other EE research & development pilots.
- Continue to seek additional DSM programs that will specifically benefit during winter peak situations.

#### **Continued Focus on Renewable Energy Resources**

- DEP is committed to complying with the newly signed HB 589 legislation, and has made assumptions to account for the non-compliance PURPA renewable purchases part of the "Transition" MW of HB 589, as well as the competitive procurement, renewable energy procurement for large customers, and community solar components of the bill.
- DEP is committed to full compliance with NC REPS in North Carolina and the SC DER Program in South Carolina. As previously discussed, the Company has experienced a substantial increase in solar QFs in the interconnection queue over the past few years. With this significant level of interest in solar development, DEP continues to procure renewable purchase power resources, when economically viable, as part of its Compliance Plans. DEP is also pursuing the addition of new utility-owned solar on the DEP system.

- DEP continues to evaluate market options for renewable generation. PPAs have been signed
  with developers of solar PV and landfill gas resources. Additionally, REC purchase
  agreements have been executed for purchases of unbundled RECs from wind, solar PV,
  solar thermal and hydroelectric facilities.
- DEP continues to pursue CHP opportunities, as appropriate, and placeholders have been included in the IRP.

#### Addition of Clean Natural Gas Resources

- Continue to evaluate older CTs on the DEP system. The Company is evaluating the
  condition and economic viability of the older CTs on the system. In doing so, DEP is
  preparing for the potential retirement of these units. This includes determining the type of
  resources needed to reliably replace these units to maintain a minimum planning reserve
  margin.
  - Sutton CT Unit 1 (12 MW/11 MW winter/summer) was officially retired in March 2017. Sutton CT Units 2A and 2B (64 MW/48 MW winter/summer) were retired in July 2017.
  - New Sutton Blackstart CT (100 MW/84 MW winter/summer) began commercial operation in July 2017.
  - Darlington CT Unit 11 was officially retired in November 2015, while Darlington CT Unit 9 was officially retired in June 2017.
  - Darlington CT Units 1-8 and 10 are projected to retire in 2020.
- Continue construction of the new combined cycle units at the Asheville facility (560 MW/ 495 MW winter/summer) in the 2019 timeframe as part of the Western Carolinas Modernization Project (WCMP).
  - Asheville Coal Units are expected to retire in 2019 upon the commercial operation of the Asheville combined cycle.
- Take actions to ensure capacity needs beginning in 2022 are met. In addition to seeking
  to meet the Company's EE and DSM goals and meeting the Company's NC REPS and
  the SC DER Program requirements, as well as the new HB 589 bill, actions to secure

additional capacity may include purchased power, short-term PPAs or Company-owned generation. The 2017 IRP projects that the best resources to meet this 2022 demand are combined cycle units.

#### **Expiration of Wholesale Purchase Contracts**

In the 2018-2022 timeframe, DEP has several wholesale purchase contracts that are scheduled to expire. At this time, DEP is not relying on contract extensions on these contracts. As such, these contract expirations are included in the IRP and Short-Term Action Plan. A summary of those expirations is shown in Table 7-A below. In addition to the expirations shown in this five year period, additional contracts expire during the 15 year IRP study period.

Table 7-A Wholesale Purchase Contract Expirations - Winter



(END CONFIDENTIAL)

#### Continued Focus on System Reliability and Resource Adequacy for DEP System

The 2016 and 2017 DEP and DEC IRPs incorporated a 17% winter reserve margin target based on results of the resource adequacy studies completed in 2016. The NCUC's 2016 IRP Order concluded that the reserve margins included in the DEP and DEC IRPs are reasonable for planning purposes. However, the Commission noted concerns outlined by the Public Staff and a report submitted by SACE, NRDC and Sierra Club consultant Wilson. DEP and DEC responded to these concerns in the Companies' detailed 2016 IRP Reply Comments regarding reserve margins and

<sup>&</sup>lt;sup>7</sup> Southern Alliance for Clean Energy and National Resources Defense Council

winter capacity planning. In addition, since the issuance of the 2016 IRP Order, the Companies have met with and initiated further discussions with the Public Staff to identify and address any remaining issues. The Companies and the Public Staff plan to file a joint report summarizing the on-going review and conclusions within 150 days of the filing of the Companies' 2017 IRP updates as directed by the NCUC.

# Continued Focus on Evolving Regulations, Environmental Compliance and Wholesale Activities

- As of December 2013, all of DEP's older, un-scrubbed coal units have been retired. In total, DEP has retired 1,600 MW of older vintage coal units since 2011. Additionally, over the same period DEP has retired approximately 400 MW of older vintage fuel-oil turbines bringing total retirements to 2,000 MW.
- The 2017 IRP shows an additional 1,000 MW of retirements over the study period with just under 400 MW of coal being retired at the Asheville site and just under 600 MW of combustion turbines being retired at the Darlington site.
- Continue to monitor the status of EPA's Clean Power Plan. In response to a March 28, 2017
   Executive Order, EPA has undertaken a review of the rule to determine whether it should be
   suspended, revised, or rescinded. The rule remains in effect pending the outcome of
   litigation and EPA's review of the rule. EPA has not announced a schedule for completing
   its review.
- Continue to investigate the future environmental control requirements and resulting
  operational impacts associated with existing and potential environmental regulations such as
  the Mercury and Air Toxics Standards (MATS), the Coal Combustion Residuals Rule
  (CCR), the Cross State Air Pollution Rule (CSAPR), and the new Ozone National Ambient
  Air Quality Standard (NAAQS).
- Aggressively pursue compliance in North Carolina and South Carolina in addressing coal
  ash management and ash pond remediation. Ensure timely compliance plans and their
  associated costs are contemplated within the planning process and future integrated resource
  plans, as appropriate.
- Continue to pursue existing and potential opportunities for wholesale power sales agreements within the Duke Energy balancing authority area.

- Continue to monitor energy-related statutory and regulatory activities.
- Continue to examine the benefits of joint capacity planning and pursue appropriate regulatory actions.

A summarization of the capacity resources for the reference plan in the 2017 IRP is shown in Table 7-B below. Capacity retirements and additions are presented as incremental values in the year in which the change is projected to impact the winter peak. The values shown for renewable resources, EE and DSM represent cumulative totals.

Table 7-B DEP Short-Term Action Plan

Duke Energy Progress Short-Term Action Plan <sup>(1)</sup>											
			Compliance Renewable Resources (Cumulative Nameplate MW)								
Year	Retirements <sup>(2)</sup>	Additions	Solar <sup>(3)</sup>	Biomass/Hydro	EE	DSM (4)					
		100 MW Sutton CT Repl									
2018	64 MW Sutton 2A, 2B	8 MW Nuc Uprate	2448	256	37	495					
2019		10 MW Nuc Uprate	2714	214	45	510					
		560 MW Asheville CC									
2020	384 MW Asheville 1-2	6 MW Nuc Uprate	3162	214	62	524					
		4 MW Nuc Uprate									
2021	580 MW Darlington CT	22 MW CHP	3371	214	79	539					
		1282 Generic CC									
2022		22 MW CHP	3580	79	103	553					

#### Notes:

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- (1) Capacities shown in winter ratings unless otherwise noted.
- (2) Sutton GT1 retired 3/30/17.

Darlington Units 1-8 and 10 are assumed to retire March 2020. Darlington 9 is currently offline and is represented as a derate through 2020 until retirement

- (3) Capacity is shown in nameplate ratings. For planning purposes, solar has a 5% contribution to winter peak.
- (4) Includes impacts of grid modernization.

# 8. CONCLUSIONS

DEP continues to focus on the needs of customers by meeting the growing demand in the most economical and reliable manner possible. The Company continues to improve the IRP process by determining best practices and making changes to more accurately and realistically represent the DEP System in its planning practices. The 2017 IRP represents a 15-year projection of the Company's plan to balance future customer demand and supply resources to meet this demand plus a 17% minimum winter planning reserve margin. Over the 15-year planning horizon, DEP expects to require 4,829 MW of additional generating resources in addition to the incremental renewable resources, EE and DSM already in the resource plan.

The Company focuses on the needs of the short-term, while keeping a close watch on market trends and technology advancements to meet the demands of customers in the long-term. The Company's short-term and long-term plans are summarized below:

# **Short-Term**

Over the next 5 years, DEP's 2017 IRP focuses on the following:

- Construction was completed on the Sutton Blackstart CTs in July 2017.
- Continue construction of the two new combined cycle units at the Asheville facility in the 2019 timeframe as part of the WCMP.
- Pursue investment in a limited number of battery storage projects to gain additional operational and technical experience with evolving utility-scale storage technologies.
- Take actions to ensure system capacity needs beginning in 2022 are met.
- Continue work with Astrapé and the Public Staff to resolve outstanding issues regarding the 2016 resource adequacy study.
- Procure CHP resources as cost-effective and diverse generation sources, as appropriate.
- Continue to meet NC REPS and SC DER Program compliance plans.
- Begin compliance with HB 589, by completing the "Transition" MW, and connecting a
  portion of the competitive procurement, renewable energy procurement for large customers,
  and community solar components of the bill.
- Continue to invest in EE and DSM in the Carolinas region.
- Continue to seek additional DSM programs that will specifically benefit during winter peak situations.

# Long-Term

Beyond the next 5 years, DEP's 2017 IRP focuses on the following:

- Continue to seek the most cost-effective, reliable resources to meet the growing customer demand in the service territory. Currently, those are new combined cycle units and combustion turbine units in the 15-year planning horizon.
- Procure CHP resources as cost-effective and diverse generation sources, as appropriate.
- Continue to meet NC REPS compliance plans, as well as the new HB 589 bill, and invest in additional cost-effective and diverse renewable resources.
- Continue implementing all portions of the HB 589 bill.
- Continue to grow and enhance EE and DSM in the Carolinas region.
- Continue to seek additional DSM programs that will specifically benefit during winter peak situations.

DEP's goal is to continue to diversify the DEP system by adding a variety of cost-effective, reliable, clean resources to meet customer demand. Over the next 15 years, the Company projects filling the increasing demand with investments in natural gas, renewables, EE and DSM.

### 9. WESTERN CAROLINAS MODERNIZATION (WCMP) UPDATE

# Western Carolinas Modernization - Energy Innovation Task Force

Since the 2016 IRP submittal, the Energy Innovation Task Force has been up and running full speed.

The task force leadership established four working groups focused on data analytics, EE and DSM programs, technology and community engagement. The Energy Innovation Task Force has met monthly for the past year to listen to the community and learn more about the efforts around targeted megawatt-reduction goals, existing programs, program barriers, existing and evolving technologies, and upcoming investment of the three co-conveners (Duke Energy Progress, City of Asheville and Buncombe County).

The co-conveners engaged Rocky Mountain Institute as a key partner early in the process to provide analytical support. Because of their participation and expertise, we now know more about how customers in Duke Energy progress-West use electricity than ever before. This analysis has determined a target of 17 megawatts of savings annually to avoid construction of the contingent CT in 2023. It also highlights the need to focus program offerings on heating system efficiency. This information is critically important to refining recommendations to achieve both goals:

- Transition DEP-West region to a smarter and cleaner energy future.
- Avoid or delay construction of the contingent CT.

The research of Rocky Mountain Institute identified the current lack of AMI in the region as a barrier to the effort's overall success. Therefore, Duke Energy Progress plans to deploy and install AMI in DEP-West beginning in March 2018, with some targeted deployment in 2017.

Additionally, Duke Energy Progress continues to pursue efforts associated with advanced demandside management programs, solar and battery storage. In 2016, through door-to-door canvassing, EnergyWise Home experienced 70 percent growth in winter participation.

Duke Energy Progress, working closely with community stakeholders, has evaluated more than 30 sites for possible utility-scale solar/battery installations. We hope to announce the first of those sites in Q3 2017.

Both the City and County are also making sizable investments to advance the work of the Energy Innovation Task Force. Both included money in their governmental 2017-2018 budget for building audits, staff support and other direct investments in low-income weatherization.

Specifically, Buncombe County is reviewing proposals for solar on the County's retired landfill (estimated 3-5 megawatts) and investing \$7 million to install LEDs in each school. This is made possible largely by Duke Energy Progress incentives for LED retrofits.

Work is also underway with the Shelton Group, a nationally-recognized firm that focuses on energy and sustainability marketing and communications, to create a brand and campaign for the Energy Innovation Task Force's work. This work is being completed in close coordination with a diverse representation of community members. The campaign will launch in Q4 2017.

Through all of these efforts and updates to the overall system load forecast, the contingent CT is now needed in 2027, instead of 2023.

#### 10. DUKE ENERGY PROGRESS OWNED GENERATION

Duke Energy Progress' generation portfolio includes a balanced mix of resources with different operating and fuel characteristics. This mix is designed to provide energy at the lowest reasonable cost to meet the Company's obligation to serve its customers. Duke Energy Progress-owned generation, as well as purchased power, is evaluated on a real-time basis in order to select and dispatch the lowest-cost resources to meet system load requirements. In 2016, Duke Energy Progress' nuclear, gas-fired and coal-fired generating units met the vast majority of customer needs by providing 46%, 35% and 18%, respectively, of Duke Energy Progress' energy from generation. Hydroelectric generation, Combustion Turbine generation, Combined Cycle generation, solar generation, long term PPAs, and economical purchases from the wholesale market supplied the remainder.

The tables below list the Duke Energy Progress' plants in service in North Carolina (NC) and South Carolina (SC) with plant statistics, and the system's total generating capability.

Existing Generating Units and Ratings <sup>1,3,5</sup>
All Generating Unit Ratings are as of August 11, 2017 unless otherwise noted.

	Coal									
	<u>Unit</u>	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type				
Asheville	1	192	189	Arden, NC	Coal	Intermediate				
Asheville	2	192	189	Arden, NC	Coal	Intermediate				
Mayo <sup>2</sup>	1	746	727	Roxboro, NC	Coal	Intermediate				
Roxboro	1	380	379	Semora, NC	Coal	Intermediate				
Roxboro	2	673	671	Semora, NC	Coal	Intermediate				
Roxboro	3	698	691	Semora, NC	Coal	Intermediate				
Roxboro 2	4	711	698	Semora, NC	Coal	Intermediate				
Total Coal		3,592	3,544							

Duke Energy Progress North Carolina PUBLIC 2017 IRP Update Report Integrated Resource Plan September 1, 2017

	Combustion Turbines								
	Unit	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type			
Asheville	3	185	160	Arden, NC	Natural Gas/Oil	Peaking			
Asheville	4	185	160	Arden, NC	Natural Gas/Oil	Peaking			
Blewett	1	17	13	Lilesville, NC	Oil	Peaking			
Blewett	2	17	13	Lilesville, NC	Oil	Peaking			
Blewett	3	17	13	Lilesville, NC	Oil	Peaking			
Blewett	4	17	13	Lilesville, NC	Oil	Peaking			
Darlington	1	63	50	Hartsville, SC	Natural Gas/Oil	Peaking			
Darlington	2	64	46	Hartsville, SC	Oil	Peaking			
Darlington	3	63	50	Hartsville, SC	Natural Gas/Oil	Peaking			
Darlington	4	66	48	Hartsville, SC	Oil	Peaking			
Darlington	5	66	49	Hartsville, SC	Natural Gas/Oil	Peaking			
Darlington	6	62	43	Hartsville, SC	Oil	Peaking			
Darlington	7	65	49	Hartsville, SC	Natural Gas/Oil	Peaking			
Darlington	8	66	46	Hartsville, SC	Oil	Peaking			
Darlington	10	65	49	Hartsville, SC	Oil	Peaking			
Darlington	12	133	118	Hartsville, SC	Natural Gas/Oil	Peaking			
Darlington	13	133	116	Hartsville, SC	Natural Gas/Oil	Peaking			
Smith 4	1	189	157	Hamlet, NC	Natural Gas/Oil	Peaking			
Smith <sup>4</sup>	2	187	156	Hamlet, NC	Natural Gas/Oil	Peaking			
Smith <sup>4</sup>	3	185	155	Hamlet, NC	Natural Gas/Oil	Peaking			
Smith 4	4	186	159	Hamlet, NC	Natural Gas/Oil	Peaking			
Smith 4	6	187	145	Hamlet, NC	Natural Gas/Oil	Peaking			
Sutton	4	50	40	Wilmington, NC	Natural Gas/Oil	Peaking			
Sutton	5	50	40	Wilmington, NC	Natural Gas/Oil	Peaking			
Wayne	1/10	192	177	Goldsboro, NC	Oil/Natural Gas	Peaking			
Wayne	2/11	192	174	Goldsboro, NC	Oil/Natural Gas	Peaking			
Wayne	3/12	193	173	Goldsboro, NC	Oil/Natural Gas	Peaking			
Wayne	4/13	191	170	Goldsboro, NC	Oil/Natural Gas	Peaking			
Wayne	5/14	195	163	Goldsboro, NC	Oil/Natural Gas	Peaking			
Weatherspoon	1	41	31	Lumberton, NC	Natural Gas/Oil	Peaking			
Weatherspoon	2	41	31	Lumberton, NC	Natural Gas/Oil	Peaking			
Weatherspoon	3	41	32	Lumberton, NC	Natural Gas/Oil	Peaking			
Weatherspoon	4	41	30	Lumberton, NC	Natural Gas/Oil	Peaking			
Total NC		2,599	2,205	<del></del>					
Total SC	***************************************	846	664						
Total CT	1	3,445	2,869						

Combined Cycle									
	<u>Unit</u>	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type			
Lee	CT1A	225	170	Goldsboro, NC	Natural Gas/Oil	Base			
Lee	CT1B	227	170	Goldsboro, NC	Natural Gas/Oil	Base			
Lee	CT1C	228	170	Goldsboro, NC	Natural Gas/Oil	Base			
Lee	ST1	379	378	Goldsboro, NC	Natural Gas/Oil	Base			
Smith 4	CT7	189	154	Hamlet, NC	Natural Gas/Oil	Base			
Smith <sup>4</sup>	CT8	189	153	Hamlet, NC	Natural Gas/Oil	Base			
Smith <sup>4</sup>	ST4	175	169	Hamlet, NC	Natural Gas/Oil	Base			
Smith 4	CT9	216	174	Hamlet, NC	Natural Gas/Oil	Base			
Smith <sup>4</sup>	CT10	216	175	Hamlet, NC	Natural Gas/Oil	Base			
Smith <sup>4</sup>	ST5	248	248	Hamlet, NC	Natural Gas/Oil	Base			
Sutton	CT1A	224	170	Wilmington, NC	Natural Gas/Oil	Base			
Sutton	CT1B	224	171	Wilmington, NC	Natural Gas/Oil	Base			
Sutton	ST1	<u>271</u>	<u>266</u>	Wilmington, NC	Natural Gas/Oil	Base			
Total CC	***************************************	3,011	2,568						

Hydro								
	Unit	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type		
Blewett	1	4	4	Lilesville, NC	Water	Intermediate		
Blewett	2	4	4	Lilesville, NC	Water	Intermediate		
Blewett	3	4	4	Lilesville, NC	Water	Intermediate		
Blewett	4	5	5	Lilesville, NC	Water	Intermediate		
Blewett	5	5	5	Lilesville, NC	Water	Intermediate		
Blewett	6	5	5	Lilesville, NC	Water	Intermediate		
Marshall	1	2	2	Marshall, NC	Water	Intermediate		
Marshall	2	2	2	Marshall, NC	Water	Intermediate		
Tillery	1	21	21	Mt. Gilead, NC	Water	Intermediate		
Tillery	2	18	18	Mt. Gilead, NC	Water	Intermediate		
Tillery	3	21	21	Mt. Gilead, NC	Water	Intermediate		
Tillery	4	24	24	Mt. Gilead, NC	Water	Intermediate		
Walters	1	36	36	Waterville, NC	Water	Intermediate		
Walters	2	40	40	Waterville, NC	Water	Intermediate		
Walters	3	<u>36</u>	<u>36</u>	Waterville, NC	Water	Intermediate		
Total Hydro		227	227					

Nuclear								
	Unit	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type		
Brunswick 2	1	975	938	Southport, NC	Uranium	Base		
Brunswick <sup>2</sup>	2	953	932	Southport, NC	Uranium	Base		
Harris <sup>2</sup>	1	973	928	New Hill, NC	Uranium	Base		
Robinson	2	<u>797</u>	<u>741</u>	Hartsville, SC	Uranium	Base		
Total NC		2,901	2,798					
Total SC		797	741					
Total Nuclear		3,698	3,539					

				Solar		
	Unit	Winter (MW)	Summer (MW)	Location	Fuel Type	Resource Type
NC Solar		7.1	62.0	NC	Solar	Intermittent

Total Generation Capability							
	Winter Capacity (MW)	Summer Capacity (MW)					
TOTAL DEP SYSTEM - N.C.	12,337	11,404					
TOTAL DEP SYSTEM - S.C.	1,643	1,405					
TOTAL DEP SYSTEM	13,980	12,809					

Note 1: Ratings reflect compliance with NERC reliability standards.

Note 2: Duke Energy Progress completed the purchase from NCEMC of jointly owned Roxboro 4, Mayo 1, Brunswick 1 & 2 and Harris 1units effective 7/31/2015.

Note 3: Resource type based on NERC capacity factor classifications which may alternate over the forecast period.

Note 4: Richmond County Plant renamed to Sherwood H. Smith Jr. Energy Complex.

Note 5: As a result of the retirement of LV Sutton units GTA and GTB and the addition of the LV Sutton Black Start units 4 and 5, an updated Capacity Letter was issued on 8/11/2017.

Planned Uprates								
<u>Unit</u>	Completion Date	Winter MW	Summer MW					
Brunswick 1 1	Spring 2020	4	2					
Brunswick 2 1	Spring 2019	6	4					
Brunswick 2 1	Spring 2023	6	4					
Brunswick 2 1	Spring 2027	4	2					
Brunswick 2 1	Spring 2023	6	4					
Harris 1 1	Fall 2016	8	4					
Harris 1 <sup>1</sup>	Spring 2018	10	5					

Note 1: Capacity not reflected in Existing Generating Units and Ratings section.

		Retirements		
Unit & Plant <u>Name</u>	Location	Capacity (MW) Winter / Summer	Fuel <u>Type</u>	Expected Retirement <u>Date</u>
Cape Fear 5	Moncure, NC	148 / 144	Coal	10/1/12
Cape Fear 6	Moncure, NC	175 / 172	Coal	10/1/12
Cape Fear 1A	Moncure, NC	14 / 11	Combustion Turbine	3/31/13
Cape Fear 1B	Moncure, NC	14 / 12	Combustion Turbine	3/31/13
Cape Fear 2A	Moncure, NC	15 / 12	Combustion Turbine	3/31/13
Cape Fear 2B	Moncure, NC	14 / 11	Combustion Turbine	10/1/12
Cape Fear 1	Moncure, NC	12 / 11	Steam Turbine	3/31/11
Cape Fear 2	Moncure, NC	12 / 7	Steam Turbine	3/31/11
Darlington 9	Hartsville, SC	65 / 50	Combustion Turbine	6/30/2017
Darlington 11	Hartsville, SC	67 / 52	Combustion Turbine	11/8/15
Lee 1	Goldsboro, NC	80 / 74	Coal	9/15/12
Lee 2	Goldsboro, NC	80 / 68	Coal	9/15/12
Lee 3	Goldsboro, NC	252 / 240	Coal	9/15/12
Lee 1	Goldsboro, NC	15 / 12	Combustion Turbine	10/1/12
Lee 2	Goldsboro, NC	27/21	Combustion Turbine	10/1/12
Lee 3	Goldsboro, NC	27/21	Combustion Turbine	10/1/12
Lee 4	Goldsboro, NC	27/21	Combustion Turbine	10/1/12
Morehead 1	Morehead City, NC	15 / 12	Combustion Turbine	10/1/12
Robinson 1	Hartsville, SC	179 / 177	Coal	10/1/12
Robinson 1	Hartsville, SC	15 / 11	Combustion Turbine	3/31/13
Weatherspoon 1	Lumberton, NC	49 / 48	Coal	9/30/11
Weatherspoon 2	Lumberton, NC	49 / 48	Coal	9/30/11
Weatherspoon 3	Lumberton, NC	79 / 74	Coal	9/30/11
Sutton 1	Wilmington, NC	98 / 97	Coal	11/27/13
Sutton 2	Wilmington, NC	95 / 90	Coal	11/27/13
Sutton 3	Wilmington, NC	389 / 366	Coal	11/4/13
Sutton GT1	Wilmington, NC	12 / 11	Combustion Turbine	3/1/2017
Sutton GTA	Wilmington, NC	31/23	Combustion Turbine	7/8/2017
Sutton GTB	Wilmington, NC	33 / 25	Combustion Turbine	7/8/2017
Total		2,088 MW / 1,921 MW		

	Planning Assumptions – Unit Retirements <sup>a</sup>								
Unit & Plant <u>Name</u>	<u>Location</u>	Winter Capacity (MW)	Summer Capacity (MW)	Fuel Type	Expected Retirement				
Asheville 1	Arden, N.C.	192	189	Coal	11/2019				
Asheville 2	Arden, N.C.	192	189	Coal	11/2019				
Mayo 1	Roxboro, N.C.	746	727	Coal	12/2035				
Roxboro 1	Semora, N.C.	380	379	Coal	12/2032				
Roxboro 2	Semora, N.C.	673	671	Coal	12/2032				
Roxboro 3	Semora, N.C.	698	691	Coal	12/2035				
Roxboro 4	Semora, N.C.	711	698	Coal	12/2035				
Robinson 2 b	Hartsville, S.C.	797	<b>74</b> 1	Nuclear	N/A				
Darlington 1	Hartsville, S.C.	63	50	Natural Gas/Oil	12/2020				
Darlington 2	Hartsville, S.C.	64	46	Oil	12/2020				
Darlington 3	Hartsville, S.C.	63	50	Natural Gas/Oil	12/2020				
Darlington 4	Hartsville, S.C.	66	48	Oil	12/2020				
Darlington 5	Hartsville, S.C.	66	49	Natural Gas/Oil	12/2020				
Darlington 6	Hartsville, S.C.	62	43	Oil	12/2020				
Darlington 7	Hartsville, S.C.	65	49	Natural Gas/Oil	12/2020				
Darlington 8	Hartsville, S.C.	66	46	Oil	12/2020				
Darlington 10	Hartsville, S.C.	65	49	Oil	12/2020				
Blewett 1	Lilesville, N.C.	17	13	Oil	12/2027				
Blewett 2	Lilesville, N.C.	17	13	Oil	12/2027				
Blewett 3	Lilesville, N.C.	17	13	Oil	12/2027				
Blewett 4	Lilesville, N.C.	17	13	Oil	12/2027				
Weatherspoon 1	Lumberton, N.C.	41	31	Natural Gas/Oil	12/2027				
Weatherspoon 2	Lumberton, N.C.	41	31	Natural Gas/Oil	12/2027				
Weatherspoon 3	Lumberton, N.C.	41	32	Natural Gas/Oil	12/2027				
Weatherspoon 4	Lumberton, N.C.	<u>41</u>	<u>30</u>	Natural Gas/Oil	12/2027				
Total NC		3,824	3,720						
Total SC		1,377	1,171						
Total		5,201	4,891						

Note a: Retirement assumptions are for planning purposes only; dates are based on useful life expectations of the unit. Note b: Nuclear retirements for planning purposes are based on the end of current operating license.

	Planning Assumptions – Unit Additions								
Unit & Plant <u>Name</u>	Location	Winter Capacity (MW)	Summer Capacity (MW)	Fuel Type	Expected <u>Commercial Date</u>				
Asheville CC	Arden, N.C.	560	495	Natural Gas	11/2019				
Asheville CT	Arden, N.C.	235	221	Natural Gas	12/2027				

# **Operating License Renewal**

Planned Operating License Renewal								
Unit & <u>Plant Name</u>	Location	Original Operating License Expiration	Date of Approval	Extended Operating License Expiration				
Blewett #1-6 1	Lilesville, NC	04/30/08	April 2015	2055				
Tillery #1-4 <sup>1</sup>	Mr. Gilead, NC	04/30/08	April 2015	2055				
Robinson #2	Hartsville, SC	07/31/10	04/19/2004	07/31/2030				
Brunswick #2	Southport, NC	12/27/14	06/26/2006	12/27/2034				
Brunswick #1	Southport, NC	09/08/16	06/26/2006	09/08/2036				
Harris #1	New Hill, NC	10/24/26	12/12/2008	10/24/2046				

Note 1: The license renewal for the Blewett and Tillery Plants was received in April 2015. The license extension was granted for 40 years.

# 11. NON-UTILITY GENERATION AND WHOLESALE

The following information describes the tables included in this chapter.

#### Wholesale Sales Contracts

This table includes wholesale sales contracts that are included in the 2017 Load Forecast. This information is **CONFIDENTIAL**.

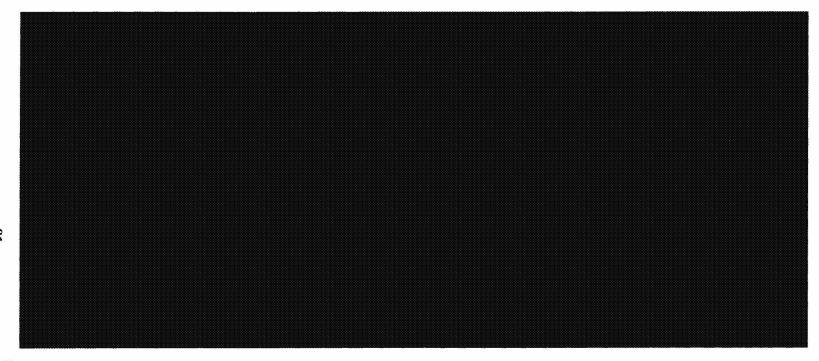
# Wholesale Purchase Contracts

This table includes all wholesale purchase contracts that are included as resources in the 2017 IRP. This information is **CONFIDENTIAL**.

#### Non-Utility Generation Contracts

This table includes all Non-Utility Generation contracts that have been signed since June 1, 2014, as this was the date utilized in the tables in Appendix H in the 2016 IRP. This list is up to date as of June 30, 2017. This information is **CONFIDENTIAL**, so the customer names have been redacted.

Table 11-A Wholesale Sales Contracts (CONFIDENTIAL)



#### Notes:

- For the period that the wholesale load is undesignated, contract volumes are projected using the same methodology as was assumed in the original contract (e.g. econometric modeling, past volumes with weather normalization and growth rates, etc.).

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Table 11-B Firm Wholesale Purchased Power Contracts (CONFIDENTIAL)



Notes: Data represented above represents contractual agreements. These resources may be modeled differently in the IRP.

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**Table 11-C** Non-Utility Generation

Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
	<u>Nor</u>	th Caroli	na Generators:	1		
Facility 1	Asheville	NC	Solar	Intermediate	Yes	4.461
Facility 2	Asheville	NC	Solar	Intermediate	Yes	16.461
Facility 3	Goldsboro	NC	Solar	Intermediate	Yes	11.419
Facility 4	Asheville	NC	Solar	Intermediate	Yes	6.893
Facility 5	Wilmington	NC	Solar	Intermediate	Yes	9.063
Facility 6	Garner	NC	Solar	Intermediate	Yes	50
Facility 7	Raleigh	NC	Solar	Intermediate	Yes	400
Facility 8	Weaverville	NC	Solar	Intermediate	Yes	4.48
Facility 9	Weaverville	NC	Solar	Intermediate	Yes	4.5
Facility 10	Wilmington	NC	Solar	Intermediate	Yes	4.3
Facility 11	Asheboro	NC	Solar	Intermediate	Yes	5.16
Facility 12	Pittsboro	NC	Solar	Intermediate	Yes	3.69
Facility 13	Pittsboro	NC	Solar	Intermediate	Yes	3.06
Facility 14	Wake Forest	NC	Solar	Intermediate	Yes	1.76
Facility 15	Raleigh	NC	Solar	Intermediate	Yes	3.16
Facility 16	Fuquay-Varina	NC	Solar	Intermediate	Yes	4.269
Facility 17	Cary	NC	Solar	Intermediate	Yes	2.4
Facility 18	Holly Springs	NC	Solar	Intermediate	Yes	400
Facility 19	Carolina Beach	NC	Solar	Intermediate	Yes	7.336
Facility 20	Raleigh	NC	Solar	Intermediate	Yes	7.711
Facility 21	Cary	NC	Solar	Intermediate	Yes	4.456
Facility 22	Asheboro	NC	Solar	Intermediate	Yes	3.724
Facility 23	Raleigh	NC	Solar	Intermediate	Yes	4.34
Facility 24	Pittsboro	NC	Solar	Intermediate	Yes	3.43
Facility 25	Holly Springs	NC	Solar	Intermediate	Yes	3.33
Facility 26	Weaverville	NC	Solar	Intermediate	Yes	6.61
Facility 27	Raleigh	NC	Solar	Intermediate	Yes	3.176
Facility 28	Clinton	NC	Solar	Intermediate	Yes	5.783
Facility 29	Whispering Pines	NC	Solar	Intermediate	Yes	6.317
Facility 30	Jacksonville	NC	Solar	Intermediate	Yes	8.887
Facility 31	Southport	NC	Other	Intermediate	Yes	4950
Facility 32	Raleigh	NC	Solar	Intermediate	Yes	3.1

n-Utility Generatio	x				Inclusion in	
Facility Name	City/County	State	Primary Fuel Type	Designation	<u>Utility's</u> Resources	Capacity (AC kW)
Facility 33	Morrisville	NC	Solar	Intermediate	Yes	150
Facility 34	Raeford	NC	Solar	Intermediate	Yes	7.24
Facility 35	Coats	NC	Solar	Intermediate	Yes	6.109
Facility 36	Clayton	NC	Solar	Intermediate	Yes	3.33
Facility 37	Apex	NC	Solar	Intermediate	Yes	9.99
Facility 38	Cary	NC	Solar	Intermediate	Yes	9.123
Facility 39	Knightdale	NC	Solar	Intermediate	Yes	1
Facility 40	Raleigh	NC	Solar	Intermediate	Yes	4.5
Facility 41	Raleigh	NC	Solar	Intermediate	Yes	2.85
Facility 42	Pinehurst	NC	Solar	Intermediate	Yes	4.28
Facility 43	Raleigh	NC	Solar	Intermediate	Yes	3.29
Facility 44	Raleigh	NC	Solar	Intermediate	Yes	1.63
Facility 45	Raleigh	NC	Solar	Intermediate	Yes	4.8
Facility 46	Newland	NC	Solar	Intermediate	Yes	5.9
Facility 47	Sanford	NC	Solar	Intermediate	Yes	25
Facility 48	Albertson	NC	Solar	Intermediate	Yes	5000
Facility 49	Knightdale	NC	Solar	Intermediate	Yes	6.796
Facility 50	Fairview	NC	Solar	Intermediate	Yes	2.8
Facility 51	Apex	NC	Solar	Intermediate	Yes	6.117
Facility 52	Fuquay-Varina	NC	Solar	Intermediate	Yes	11.818
Facility 53	Candler	NC	Solar	Intermediate	Yes	2.37
Facility 54	Apex	NC	Solar	Intermediate	Yes	2.89
Facility 55	Pittsboro	NC	Solar	Intermediate	Yes	6.86
Facility 56	Southern Pines	NC	Solar	Intermediate	Yes	4.32
Facility 57	Wake Forest	NC	Solar	Intermediate	Yes	8.661
Facility 58	Wilmington	NC	Solar	Intermediate	Yes	6.46
Facility 59	Asheville	NC	Solar	Intermediate	Yes	6
Facility 60	Cary	NC	Solar	Intermediate	Yes	2.6
Facility 61	New Hill	NC	Solar	Intermediate	Yes	6.2
Facility 62	Fuquay Varina	NC	Solar	Intermediate	Yes	6.53
Facility 63	Apex	NC	Solar	Intermediate	Yes	9.12
Facility 64	Oxford	NC	Solar	Intermediate	Yes	4.448
Facility 65	Raleigh	NC	Solar	Intermediate	Yes	3.1
Facility 66	Dunn	NC	Solar	Intermediate	Yes	10.663
Facility 67	Pittsboro	NC	Solar	Intermediate	Yes	77

on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 68	Raleigh	NC	Solar	Intermediate	Yes	3		
Facility 69	Wilmington	NC	Solar	Intermediate	Yes	9		
Facility 70	Wade	NC	Solar	Intermediate	Yes	7.16		
Facility 71	Goldsboro	NC	Solar	Intermediate	Yes	5000		
Facility 72	Asheville	NC	Solar	Intermediate	Yes	0.78		
Facility 73	Wilmington	NC	Solar	Intermediate	Yes	7.22		
Facility 74	Asheville	NC	Solar	Intermediate	Yes	3.85		
Facility 75	Morrisville	NC	Solar	Intermediate	Yes	5.128		
Facility 76	Raleigh	NC	Solar	Intermediate	Yes	6.33		
Facility 77	Raleigh	NC	Solar	Intermediate	Yes	7.47		
Facility 78	Asheville	NC	Solar	Intermediate	Yes	11		
Facility 79	Wrightsville Beach	NC	Solar	Intermediate	Yes	7.92		
Facility 80	Holly Springs	NC	Solar	Intermediate	Yes	4.1		
Facility 81	Raleigh	NC	Solar	Intermediate	Yes	4.59		
Facility 82	New Bern	NC	Solar	Intermediate	Yes	4.43		
Facility 83	Asheville	NC	Solar	Intermediate	Yes	5.15		
Facility 84	Raleigh	NC	Solar	Intermediate	Yes	4.9		
Facility 85	Pittsboro	NC	Solar	Intermediate	Yes	1.632		
Facility 86	Asheville	NC	Solar	Intermediate	Yes	3.86		
Facility 87	Roseboro	NC	Solar	Intermediate	Yes	1980		
Facility 88	Asheville	NC	Solar	Intermediate	Yes	4.842		
Facility 89	Pikeville	NC	Solar	Intermediate	Yes	16.614		
Facility 90	Asheville	NC	Solar	Intermediate	Yes	6		
Facility 91	Benson	NC	Solar	Intermediate	Yes	3		
Facility 92	Fuquay Varina	NC	Solar	Intermediate	Yes	5.6		
Facility 93	Morrisville	NC	Solar	Intermediate	Yes	4.07		
Facility 94	Fuquay Varina	NC	Solar	Intermediate	Yes	5.88		
Facility 95	Pittsboro	NC	Solar	Intermediate	Yes	3.7		
Facility 96	Cary	NC	Solar	Intermediate	Yes	4.17		
Facility 97	Holly Springs	NC	Solar	Intermediate	Yes	4.1		
Facility 98	Raleigh	NC	Solar	Intermediate	Yes	5		
Facility 99	New Bern	NC	Solar	Intermediate	Yes	5000		
Facility 100	Prospect Hill	NC	Solar	Intermediate	Yes	5.11		
Facility 101	Wilmington	NC	Solar	Intermediate	Yes	5.88		
Facility 102	Linden	NC	Solar	Intermediate	Yes	4.842		

on-Utility Generation	n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 103	Pinehurst	NC	Solar	Intermediate	Yes	11.673			
Facility 104	Star	NC	Solar	Intermediate	Yes	2.3			
Facility 105	Fayetteville	NC	Solar	Intermediate	Yes	3.51			
Facility 106	Raeford	NC	Solar	Intermediate	Yes	4			
Facility 107	Leicester	NC	Solar	Intermediate	Yes	2.4			
Facility 108	Angier	NC	Solar	Intermediate	Yes	4400			
Facility 109	Asheboro	NC	Solar	Intermediate	Yes	12.2			
Facility 110	Willow Spring	NC	Solar	Intermediate	Yes	3.76			
Facility 111	Raleigh	NC	Solar	Intermediate	Yes	5			
Facility 112	Raleigh	NC	Solar	Intermediate	Yes	2.125			
Facility 113	Raleigh	NC	Solar	Intermediate	Yes	7.85			
Facility 114	Coats	NC	Solar	Intermediate	Yes	3.84			
Facility 115	Weaverville	NC	Solar	Intermediate	Yes	3.68			
Facility 116	Pinehurst	NC	Solar	Intermediate	Yes	7.639			
Facility 117	Wilmington	NC	Solar	Intermediate	Yes	3.9			
Facility 118	Raleigh	NC	Solar	Intermediate	Yes	4.7			
Facility 119	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 120	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 121	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 122	Wilmington	NC	Solar	Intermediate	Yes	2.63			
Facility 123	Hampstead	NC	Solar	Intermediate	Yes	4.3			
Facility 124	Castalia	NC	Solar	Intermediate	Yes	3			
Facility 125	Fletcher	NC	Solar	Intermediate	Yes	3.809			
Facility 126	Raleigh	NC	Solar	Intermediate	Yes	3.75			
Facility 127	Sanford	NC	Solar	Intermediate	Yes	5.02			
Facility 128	Angier	NC	Solar	Intermediate	Yes	2.58			
Facility 129	Raleigh	NC	Solar	Intermediate	Yes	3.9			
Facility 130	Bear Creek	NC	Solar	Intermediate	Yes	7.34			
Facility 131	Goldsboro	NC	Solar	Intermediate	Yes	4.983			
Facility 132	Pittsboro	NC	Solar	Intermediate	Yes	8			
Facility 133	Wake Forest	NC	Solar	Intermediate	Yes	1.76			
Facility 134	Chapel Hill	NC	Solar	Intermediate	Yes	3.25			
Facility 135	Clyde	NC	Solar	Intermediate	Yes	9			
Facility 136	Snow Hill	NC	Solar	Intermediate	Yes	1999			
Facility 137	Arden	NC	Solar	Intermediate	Yes	23			

n-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 138	Asheboro	NC	Solar	Intermediate	Yes	398		
Facility 139	Cary	NC	Solar	Intermediate	Yes	190		
Facility 140	Warrenton	NC	Solar	Intermediate	Yes	383		
Facility 141	Laurinburg	NC	Solar	Intermediate	Yes	193		
Facility 142	Cary	NC	Solar	Intermediate	Yes	8		
Facility 143	Cary	NC	Solar	Intermediate	Yes	2.45		
Facility 144	Kure Beach	NC	Solar	Intermediate	Yes	2.56		
Facility 145	Pinehurst	NC	Solar	Intermediate	Yes	2.64		
Facility 146	Raleigh	NC	Solar	Intermediate	Yes	4.35		
Facility 147	Fairview	NC	Solar	Intermediate	Yes	34		
Facility 148	Fletcher	NC	Solar	Intermediate	Yes	40		
Facility 149	Asheville	NC	Solar	Intermediate	Yes	6		
Facility 150	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 151	Wilmington	NC	Solar	Intermediate	Yes	2.8		
Facility 152	Asheville	NC	Solar	Intermediate	Yes	6.8		
Facility 153	Cary	NC	Solar	Intermediate	Yes	5.7		
Facility 154	Rose Hill	NC	Solar	Intermediate	Yes	5000		
Facility 155	Cary	NC	Solar	Intermediate	Yes	5.058		
Facility 156	Beulaville	NC	Solar	Intermediate	Yes	4998		
Facility 157	Hampstead	NC	Solar	Intermediate	Yes	10		
Facility 158	Holly Springs	NC	Solar	Intermediate	Yes	5.1		
Facility 159	Raleigh	NC	Solar	Intermediate	Yes	5.7		
Facility 160	Pittsboro	NC	Solar	Intermediate	Yes	3.06		
Facility 161	Asheville	NC	Solar	Intermediate	Yes	6.161		
Facility 162	Raleigh	NC	Solar	Intermediate	Yes	2.751		
Facility 163	Cameron	NC	Solar	Intermediate	Yes	9		
Facility 164	Asheville	NC	Solar	Intermediate	Yes	9.6		
Facility 165	Aberdeen	NC	Solar	Intermediate	Yes	4.14		
Facility 166	Wilmington	NC	Solar	Intermediate	Yes	6.792		
Facility 167	Bailey	NC	Solar	Intermediate	Yes	4950		
Facility 168	Raleigh	NC	Solar	Intermediate	Yes	5		
Facility 169	Raleigh	NC	Solar	Intermediate	Yes	77.9		
Facility 170	Raleigh	NC	Solar	Intermediate	Yes	180		
Facility 171	Raleigh	NC	Solar	Intermediate	Yes	40		
Facility 172	Raleigh	NC	Solar	Intermediate	Yes	5		

on-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 173	Raleigh	NC	Solar	Intermediate	Yes	32			
Facility 174	Cary	NC	Solar	Intermediate	Yes	4.39			
Facility 175	Spring Lake	NC	Solar	Intermediate	Yes	4.555			
Facility 176	Sanford	NC	Solar	Intermediate	Yes	5000			
Facility 177	Fuquay-Varina	NC	Solar	Intermediate	Yes	7.019			
Facility 178	Asheville	NC	Solar	Intermediate	Yes	10.703			
Facility 179	Clayton	NC	Solar	Intermediate	Yes	5.3			
Facility 180	Lillington	NC	Solar	Intermediate	Yes	3.23			
Facility 181	Asheville	NC	Solar	Intermediate	Yes	3.37			
Facility 182	Leicester	NC	Solar	Intermediate	Yes	6			
Facility 183	Louisburg	NC	Solar	Intermediate	Yes	2.49			
Facility 184	Durham	NC	Solar	Intermediate	Yes	5			
Facility 185	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 186	Asheville	NC	Solar	Intermediate	Yes	60			
Facility 187	Wilmington	NC	Solar	Intermediate	Yes	6.98			
Facility 188	Wilmington	NC	Solar	Intermediate	Yes	4.1			
Facility 189	Fairview	NC	Solar	Intermediate	Yes	7.251			
Facility 190	Cary	NC	Solar	Intermediate	Yes	6			
Facility 191	Pinehurst	NC	Solar	Intermediate	Yes	6.69			
Facility 192	Hampstead	NC	Solar	Intermediate	Yes	2.58			
Facility 193	Ramseur	NC	Solar	Intermediate	Yes	5.283			
Facility 194	Weaverville	NC	Solar	Intermediate	Yes	6.908			
Facility 195	Apex	NC	Solar	Intermediate	Yes	20			
Facility 196	Wilmington	NC	Solar	Intermediate	Yes	9.631			
Facility 197	Clayton	NC	Solar	Intermediate	Yes	17.48			
Facility 198	Fayetteville	NC	Solar	Intermediate	Yes	6.222			
Facility 199	Middlesex	NC	Solar	Intermediate	Yes	8.009			
Facility 200	Zebulon	NC	Solar	Intermediate	Yes	13.312			
Facility 201	Burgaw	NC	Solar	Intermediate	Yes	5000			
Facility 202	Burgaw	NC	Solar	Intermediate	Yes	5000			
Facility 203	Arden	NC	Solar	Intermediate	Yes	3.72			
Facility 204	Raleigh	NC	Solar	Intermediate	Yes	5.305			
Facility 205	Chocowinity	NC	Solar	Intermediate	Yes	15000			
Facility 206	Four Oaks	NC	Solar	Intermediate	Yes	798			
Facility 207	Asheville	NC	Solar	Intermediate	Yes	6.88			

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 208	Cary	NC	Solar	Intermediate	Yes	5.61		
Facility 209	Cary	NC	Solar	Intermediate	Yes	4.148		
Facility 210	Southern Pines	NC	Solar	Intermediate	Yes	3		
Facility 211	Asheville	NC	Solar	Intermediate	Yes	4.063		
Facility 212	Weaverville	NC	Solar	Intermediate	Yes	3.01		
Facility 213	Louisburg	NC	Solar	Intermediate	Yes	4.71		
Facility 214	Asheville	NC	Solar	Intermediate	Yes	3.072		
Facility 215	Spruce Pine	NC	Solar	Intermediate	Yes	1		
Facility 216	Raleigh	NC	Solar	Intermediate	Yes	6.05		
Facility 217	Apex	NC	Solar	Intermediate	Yes	3.41		
Facility 218	Cary	NC	Solar	Intermediate	Yes	5.18		
Facility 219	Wilmington	NC	Solar	Intermediate	Yes	3.003		
Facility 220	Rocky Mount	NC	Solar	Intermediate	Yes	2.907		
Facility 221	Alexander	NC	Solar	Intermediate	Yes	9.04		
Facility 222	Asheville	NC	Solar	Intermediate	Yes	2		
Facility 223	Pittsboro	NC	Solar	Intermediate	Yes	8		
Facility 224	Elm City	NC	Solar	Intermediate	Yes	2.03		
Facility 225	Raleigh	NC	Solar	Intermediate	Yes	3.26		
Facility 226	Asheville	NC	Solar	Intermediate	Yes	3.4		
Facility 227	Raleigh	NC	Solar	Intermediate	Yes	1.1		
Facility 228	Cary	NC	Solar	Intermediate	Yes	3.08		
Facility 229	Pittsboro	NC	Solar	Intermediate	Yes	4.84		
Facility 230	Asheville	NC	Solar	Intermediate	Yes	6.125		
Facility 231	Southern Pines	NC	Solar	Intermediate	Yes	2.15		
Facility 232	Raleigh	NC	Solar	Intermediate	Yes	5.62		
Facility 233	Chapel Hill	NC	Solar	Intermediate	Yes	2.04		
Facility 234	Beulaville	NC	Solar	Intermediate	Yes	1999		
Facility 235	Raleigh	NC	Solar	Intermediate	Yes	2.448		
Facility 236	Pittsboro	NC	Solar	Intermediate	Yes	3.61		
Facility 237	Barnardsville	NC	Solar	Intermediate	Yes	3.6		
Facility 238	Goldsboro	NC	Solar	Intermediate	Yes	4.6		
Facility 239	Fuquay Varina	NC	Solar	Intermediate	Yes	2.1		
Facility 240	Clayton	NC	Solar	Intermediate	Yes	407		
Facility 241	Cary	NC	Solar	Intermediate	Yes	3.209		
Facility 242	Cary	NC	Solar	Intermediate	Yes	1.4		

on-Utility Generation	n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 243	Cary	NC	Solar	Intermediate	Yes	7			
Facility 244	Asheville	NC	Solar	Intermediate	Yes	5.858			
Facility 245	Cary	NC	Solar	Intermediate	Yes	5			
Facility 246	Weaverville	NC	Solar	Intermediate	Yes	6			
Facility 247	Apex	NC	Solar	Intermediate	Yes	20			
Facility 248	Angier	NC	Solar	Intermediate	Yes	4.76			
Facility 249	Asheville	NC	Solar	Intermediate	Yes	1500			
Facility 250	Asheville	NC	Solar	Intermediate	Yes	2.5			
Facility 251	Oxford	NC	Solar	Intermediate	Yes	7.4			
Facility 252	Asheville	NC	Solar	Intermediate	Yes	3.9			
Facility 253	Asheville	NC	Solar	Intermediate	Yes	2.4			
Facility 254	Asheville	NC	Solar	Intermediate	Yes	3.9			
Facility 255	Asheville	NC	Solar	Intermediate	Yes	1.4			
Facility 256	Biscoe	NC	Solar	Intermediate	Yes	5000			
Facility 257	Selma	NC	Solar	Intermediate	Yes	4998			
Facility 258	Selma	NC	Solar	Intermediate	Yes	4998			
Facility 259	Roseboro	NC	Landfill Gas	Intermediate	Yes	9000			
Facility 260	Black Mountain	NC	Solar	Intermediate	Yes	3.2			
Facility 261	Black Mountain	NC	Solar	Intermediate	Yes	3.2			
Facility 262	Bladenboro	NC	Solar	Intermediate	Yes	4975			
Facility 263	Greensboro	NC	Solar	Intermediate	Yes	5000			
Facility 264	Fairview	NC	Solar	Intermediate	Yes	7.12			
Facility 265	Raleigh	NC	Solar	Intermediate	Yes	5.384			
Facility 266	Asheville	NC	Solar	Intermediate	Yes	4.405			
Facility 267	Newport	NC	Solar	Intermediate	Yes	10.6			
Facility 268	Asheville	NC	Solar	Intermediate	Yes	4.3			
Facility 269	Grantham	NC	Solar	Intermediate	Yes	5000			
Facility 270	Fuquay Varina	NC	Solar	Intermediate	Yes	385			
Facility 271	Apex	NC	Solar	Intermediate	Yes	3.9			
Facility 272	Raleigh	NC	Solar	Intermediate	Yes	2.64			
Facility 273	Pinehurst	NC	Solar	Intermediate	Yes	9.33			
Facility 274	Pittsboro	NC	Solar	Intermediate	Yes	3.69			
Facility 275	Warrenton	NC	Solar	Intermediate	Yes	4975			
Facility 276	Apex	NC	Solar	Intermediate	Yes	6.9			
Facility 277	Chapel Hill	NC	Solar	Intermediate	Yes	5.07			

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 278	Vass	NC	Solar	Intermediate	Yes	2		
Facility 279	Asheville	NC	Solar	Intermediate	Yes	3.44		
Facility 280	Asheville	NC	Solar	Intermediate	Yes	3.024		
Facility 281	Alexander	NC	Solar	Intermediate	Yes	2.91		
Facility 282	Clayton	NC	Solar	Intermediate	Yes	5.81		
Facility 283	Asheville	NC	Solar	Intermediate	Yes	5.443		
Facility 284	Asheville	NC	Solar	Intermediate	Yes	4.537		
Facility 285	Asheville	NC	Solar	Intermediate	Yes	4.514		
Facility 286	Asheville	NC	Solar	Intermediate	Yes	5.127		
Facility 287	Raleigh	NC	Solar	Intermediate	Yes	7.289		
Facility 288	Benson	NC	Solar	Intermediate	Yes	3.581		
Facility 289	Asheville	NC	Solar	Intermediate	Yes	7.579		
Facility 290	Randleman	NC	Solar	Intermediate	Yes	3.976		
Facility 291	Nashville	NC	Solar	Intermediate	Yes	4.131		
Facility 292	Asheville	NC	Solar	Intermediate	Yes	3.834		
Facility 293	Garner	NC	Solar	Intermediate	Yes	4.92		
Facility 294	Fuquay-Varina	NC	Solar	Intermediate	Yes	5.345		
Facility 295	Chapel Hill	NC	Solar	Intermediate	Yes	2.56		
Facility 296	Holly Springs	NC	Solar	Intermediate	Yes	5.92		
Facility 297	Pittsboro	NC	Solar	Intermediate	Yes	4.077		
Facility 298	Oxford	NC	Solar	Intermediate	Yes	5000		
Facility 299	Angier	NC	Solar	Intermediate	Yes	2.58		
Facility 300	Oxford	NC	Solar	Intermediate	Yes	2.83		
Facility 301	New Hill	NC	Solar	Intermediate	Yes	5.47		
Facility 302	Sanford	NC	Solar	Intermediate	Yes	5.75		
Facility 303	Raleigh	NC	Solar	Intermediate	Yes	9.84		
Facility 304	Goldsboro	NC	Solar	Intermediate	Yes	8.989		
Facility 305	Raleigh	NC	Solar	Intermediate	Yes	4.5		
Facility 306	Pinehurst	NC	Solar	Intermediate	Yes	4.86		
Facility 307	Wilmington	NC	Solar	Intermediate	Yes	5		
Facility 308	Raleigh	NC	Solar	Intermediate	Yes	3.14		
Facility 309	Raleigh	NC	Solar	Intermediate	Yes	7.7		
Facility 310	Wilmington	NC	Solar	Intermediate	Yes	3.21		
Facility 311	Morrisville	NC	Solar	Intermediate	Yes	5.16		
Facility 312	Cary	NC	Solar	Intermediate	Yes	3.93		

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 313	Asheville	NC	Solar	Intermediate	Yes	4.62		
Facility 314	Wendell	NC	Solar	Intermediate	Yes	4.33		
Facility 315	Clayton	NC	Solar	Intermediate	Yes	2.25		
Facility 316	Cary	NC	Solar	Intermediate	Yes	3.6		
Facility 317	Raleigh	NC	Solar	Intermediate	Yes	5.29		
Facility 318	Fuquay Varina	NC	Solar	Intermediate	Yes	3.79		
Facility 319	Baltimore Lake	NC	Solar	Intermediate	Yes	6		
Facility 320	Goldsboro	NC	Solar	Intermediate	Yes	4.62		
Facility 321	Holly Springs	NC	Solar	Intermediate	Yes	4.22		
Facility 322	Leland	NC	Solar	Intermediate	Yes	3.4		
Facility 323	Asheville	NC	Solar	Intermediate	Yes	3.53		
Facility 324	Fairview	NC	Solar	Intermediate	Yes	2.16		
Facility 325	Arden	NC	Solar	Intermediate	Yes	5.512		
Facility 326	Semora	NC	Solar	Intermediate	Yes	4.585		
Facility 327	Apex	NC	Solar	Intermediate	Yes	4		
Facility 328	Chadbourn	NC	Solar	Intermediate	Yes	5000		
Facility 329	Clayton	NC	Solar	Intermediate	Yes	4.2		
Facility 330	Cary	NC	Solar	Intermediate	Yes	4.68		
Facility 331	Raleigh	NC	Solar	Intermediate	Yes	2.2		
Facility 332	Raleigh	NC	Solar	Intermediate	Yes	2.69		
Facility 333	Moncure	NC	Hydroelectric	Baseload	Yes	1500		
Facility 334	Maggie Valley	NC	Solar	Intermediate	Yes	8.614		
Facility 335	Fayetteville	NC	Solar	Intermediate	Yes	3.437		
Facility 336	New Hill	NC	Solar	Intermediate	Yes	6.276		
Facility 337	New Hill	NC	Solar	Intermediate	Yes	9.643		
Facility 338	Raleigh	NC	Solar	Intermediate	Yes	2.751		
Facility 339	Biltmore Lake	NC	Solar	Intermediate	Yes	3.564		
Facility 340	Chapel Hill	NC	Solar	Intermediate	Yes	3.182		
Facility 341	Cary	NC	Solar	Intermediate	Yes	3.615		
Facility 342	Apex	NC	Solar	Intermediate	Yes	3.687		
Facility 343	Angier	NC	Solar	Intermediate	Yes	6.913		
Facility 344	Asheville	NC	Solar	Intermediate	Yes	3		
Facility 345	Pittsboro	NC	Solar	Intermediate	Yes	3		
Facility 346	Balsam	NC	Solar	Intermediate	Yes	3.8		
Facility 347	Wilmington	NC	Solar	Intermediate	Yes	4.82		

on-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 348	Asheville	NC	Solar	Intermediate	Yes	4.3			
Facility 349	Raleigh	NC	Solar	Intermediate	Yes	5.7			
Facility 350	Raleigh	NC	Solar	Intermediate	Yes	2			
Facility 351	Black Mountain	NC	Solar	Intermediate	Yes	10			
Facility 352	Clayton	NC	Solar	Intermediate	Yes	11.24			
Facility 353	Clayton	NC	Solar	Intermediate	Yes	3.773			
Facility 354	Biltmore Lake	NC	Solar	Intermediate	Yes	7.127			
Facility 355	Pittsboro	NC	Solar	Intermediate	Yes	3.773			
Facility 356	Raleigh	NC	Solar	Intermediate	Yes	5.622			
Facility 357	Alexander	NC	Landfill Gas	Intermediate	Yes	1415			
Facility 358	Bunnlevel	NC	Solar	Intermediate	Yes	5000			
Facility 359	Spring Hope	NC	Solar	Intermediate	Yes	9.439			
Facility 360	Garner	NC	Solar	Intermediate	Yes	4.917			
Facility 361	Black Mountain	NC	Solar	Intermediate	Yes	1.566			
Facility 362	Asheville	NC	Solar	Intermediate	Yes	3.299			
Facility 363	Raleigh	NC	Solar	Intermediate	Yes	3.918			
Facility 364	Fairview	NC	Solar	Intermediate	Yes	9.094			
Facility 365	Asheville	NC	Solar	Intermediate	Yes	4.56			
Facility 366	Chapel Hill	NC	Solar	Intermediate	Yes	5.218			
Facility 367	Fletcher	NC	Solar	Intermediate	Yes	1.647			
Facility 368	Barnardsville	NC	Solar	Intermediate	Yes	0.86			
Facility 369	Waynesville	NC	Solar	Intermediate	Yes	3.907			
Facility 370	Wilmington	NC	Solar	Intermediate	Yes	10.188			
Facility 371	Fuquay Varina	NC	Solar	Intermediate	Yes	3.097			
Facility 372	Wilmington	NC	Solar	Intermediate	Yes	1.63			
Facility 373	Fuquay-Varina	NC	Solar	Intermediate	Yes	2.347			
Facility 374	Asheboro	NC	Solar	Intermediate	Yes	3.709			
Facility 375	Asheville	NC	Solar	Intermediate	Yes	4.8			
Facility 376	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 377	Vass	NC	Solar	Intermediate	Yes	4.7			
Facility 378	Vass	NC	Solar	Intermediate	Yes	8			
Facility 379	Raleigh	NC	Solar	Intermediate	Yes	7.54			
Facility 380	Henderson	NC	Solar	Intermediate	Yes	16			
Facility 381	Black Mountain	NC	Solar	Intermediate	Yes	6.1			
Facility 382	Black Mountain	NC	Solar	Intermediate	Yes	2.3			

on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 383	Knightdale	NC	Solar	Intermediate	Yes	4.694		
Facility 384	Princeton	NC	Solar	Intermediate	Yes	5000		
Facility 385	Asheville	NC	Solar	Intermediate	Yes	8.337		
Facility 386	Wilmington	NC	Solar	Intermediate	Yes	1.4		
Facility 387	Wilmington	NC	Solar	Intermediate	Yes	4		
Facility 388	Roxboro	NC	Biomass	Intermediate	Yes	42000		
Facility 389	Southport	NC	Biomass	Intermediate	Yes	80000		
Facility 390	Raleigh	NC	Solar	Intermediate	Yes	8.131		
Facility 391	New Hanover	NC	Solar	Intermediate	Yes	4.275		
Facility 392	Benson	NC	Solar	Intermediate	Yes	6		
Facility 393	Wake Forest	NC	Solar	Intermediate	Yes	2.65		
Facility 394	Asheville	NC	Solar	Intermediate	Yes	2.25		
Facility 395	Angier	NC	Solar	Intermediate	Yes	5.63		
Facility 396	Fletcher	NC	Solar	Intermediate	Yes	1.72		
Facility 397	Raleigh	NC	Solar	Intermediate	Yes	4.82		
Facility 398	West End	NC	Solar	Intermediate	Yes	2.5		
Facility 399	Timberlake	NC	Solar	Intermediate	Yes	520		
Facility 400	Raleigh	NC	Solar	Intermediate	Yes	40		
Facility 401	Raleigh	NC	Solar	Intermediate	Yes	200		
Facility 402	Asheville	NC	Solar	Intermediate	Yes	193		
Facility 403	Asheville	NC	Solar	Intermediate	Yes	3.38		
Facility 404	Chapel Hill	NC	Solar	Intermediate	Yes	5.39		
Facility 405	Raleigh	NC	Solar	Intermediate	Yes	5.46		
Facility 406	Cary	NC	Solar	Intermediate	Yes	5.75		
Facility 407	Asheboro	NC	Solar	Intermediate	Yes	2.412		
Facility 408	Asheville	NC	Solar	Intermediate	Yes	7.66		
Facility 409	Pittsboro	NC	Solar	Intermediate	Yes	3.25		
Facility 410	Asheville	NC	Solar	Intermediate	Yes	11.025		
Facility 411	Morehead City	NC	Solar	Intermediate	Yes	1.2		
Facility 412	Sanford	NC	Solar	Intermediate	Yes	3		
Facility 413	Cary	NC	Solar	Intermediate	Yes	3.4		
Facility 414	Biltmore Lake	NC	Solar	Intermediate	Yes	3.42		
Facility 415	Asheville	NC	Solar	Intermediate	Yes	3.9		
Facility 416	Asheville	NC	Solar	Intermediate	Yes	7.083		
Facility 417	Castalia	NC	Solar	Intermediate	Yes	1999		

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 418	Goldston	NC	Solar	Intermediate	Yes	7.032		
Facility 419	Cary	NC	Solar	Intermediate	Yes	2.6		
Facility 420	Pittsboro	NC	Solar	Intermediate	Yes	4.48		
Facility 421	Pittsboro	NC	Solar	Intermediate	Yes	4.96		
Facility 422	Barnardsville	NC	Solar	Intermediate	Yes	4.36		
Facility 423	Raleigh	NC	Solar	Intermediate	Yes	4.32		
Facility 424	Raleigh	NC	Solar	Intermediate	Yes	6		
Facility 425	Carolina Beach	NC	Solar	Intermediate	Yes	2.83		
Facility 426	Raleigh	NC	Solar	Intermediate	Yes	2.58		
Facility 427	Elizabethtown	NC	Solar	Intermediate	Yes	4800		
Facility 428	Garner	NC	Solar	Intermediate	Yes	2500		
Facility 429	Garner	NC	Solar	Intermediate	Yes	1050		
Facility 430	Raleigh	NC	Solar	Intermediate	Yes	43		
Facility 431	Fayetteville	NC	Solar	Intermediate	Yes	5		
Facility 432	Candler	NC	Solar	Intermediate	Yes	2.4		
Facility 433	Asheville	NC	Solar	Intermediate	Yes	2.92		
Facility 434	Beulaville	NC	Solar	Intermediate	Yes	5000		
Facility 435	Raleigh	NC	Solar	Intermediate	Yes	134		
Facility 436	Asheville	NC	Solar	Intermediate	Yes	12.301		
Facility 437	Pittsboro	NC	Solar	Intermediate	Yes	0.7		
Facility 438	Asheville	NC	Solar	Intermediate	Yes	14.62		
Facility 439	Cary	NC	Solar	Intermediate	Yes	8.294		
Facility 440	Chapel Hill	NC	Solar	Intermediate	Yes	3.1		
Facility 441	Asheville	NC	Solar	Intermediate	Yes	4.29		
Facility 442	Whiteville	NC	Solar	Intermediate	Yes	5000		
Facility 443	Candler	NC	Solar	Intermediate	Yes	6.388		
Facility 444	Raleigh	NC	Solar	Intermediate	Yes	5.031		
Facility 445	Cary	NC	Solar	Intermediate	Yes	1.5		
Facility 446	Pittsboro	NC	Solar	Intermediate	Yes	4.671		
Facility 447	Fayetteville	NC	Solar	Intermediate	Yes	3.27		
Facility 448	Fuquay Varina	NC	Solar	Intermediate	Yes	4		
Facility 449	Cary	NC	Solar	Intermediate	Yes	6.7		
Facility 450	Pinehurst	NC	Solar	Intermediate	Yes	2.86		
Facility 451	Pinehurst	NC	Solar	Intermediate	Yes	3.44		
Facility 452	Raleigh	NC	Solar	Intermediate	Yes	4.7		

lon-Utility Generation	n-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 453	Black Mountain	NC	Solar	Intermediate	Yes	4.68			
Facility 454	Pittsboro	NC	Solar	Intermediate	Yes	3.71			
Facility 455	Fletcher	NC	Solar	Intermediate	Yes	3.23			
Facility 456	Wilmington	NC	Solar	Intermediate	Yes	2.2			
Facility 457	Cameron	NC	Solar	Intermediate	Yes	8.45			
Facility 458	Weaverville	NC	Solar	Intermediate	Yes	5.01			
Facility 459	Cameron	NC	Solar	Intermediate	Yes	9.46			
Facility 460	Rocky Point	NC	Solar	Intermediate	Yes	3			
Facility 461	Raleigh	NC	Solar	Intermediate	Yes	3.53			
Facility 462	Wilmington	NC	Solar	Intermediate	Yes	5.06			
Facility 463	Henderson	NC	Solar	Intermediate	Yes	9			
Facility 464	Candler	NC	Solar	Intermediate	Yes	2.19			
Facility 465	Pittsboro	NC	Solar	Intermediate	Yes	6.12			
Facility 466	Wilmington	NC	Solar	Intermediate	Yes	1.4			
Facility 467	Pittsboro	NC	Solar	Intermediate	Yes	2.64			
Facility 468	Pittsboro	NC	Solar	Intermediate	Yes	1.72			
Facility 469	Angier	NC	Solar	Intermediate	Yes	4.75			
Facility 470	Angier	NC	Solar	Intermediate	Yes	5.82			
Facility 471	Apex	NC	Solar	Intermediate	Yes	2.1			
Facility 472	Whispering Pines	NC	Solar	Intermediate	Yes	3.74			
Facility 473	Pittsboro	NC	Solar	Intermediate	Yes	2.96			
Facility 474	Asheboro	NC	Solar	Intermediate	Yes	2.58			
Facility 475	Spring Hope	NC	Solar	Intermediate	Yes	7.78			
Facility 476	Pittsboro	NC	Solar	Intermediate	Yes	3.32			
Facility 478	Wilmington	NC	Solar	Intermediate	Yes	4.61			
Facility 479	Raleigh	NC	Solar	Intermediate	Yes	5.646			
Facility 480	Lake Waccamaw	NC	Solar	Intermediate	Yes	4975			
Facility 481	Cary	NC	Solar	Intermediate	Yes	3.868			
Facility 482	Middlesex	NC	Solar	Intermediate	Yes	5000			
Facility 483	Henderson	NC	Solar	Intermediate	Yes	5.28			
Facility 484	Kinston	NC	Solar	Intermediate	Yes	3			
Facility 485	Raleigh	NC	Solar	Intermediate	Yes	6.398			
Facility 486	Leland	NC	Solar	Intermediate	Yes	3.96			
Facility 487	Raleigh	NC	Solar	Intermediate	Yes	5.65			
Facility 488	Apex	NC	Solar	Intermediate	Yes	3.1			

on-Utility Generation	n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 489	Raleigh	NC	Solar	Intermediate	Yes	5.331			
Facility 490	Angier	NC	Solar	Intermediate	Yes	6.277			
Facility 491	Albertson	NC	Solar	Intermediate	Yes	5000			
Facility 492	Chocowinity	NC	Solar	Intermediate	Yes	5000			
Facility 493	Chocowinity	NC	Solar	Intermediate	Yes	4.504			
Facility 494	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 495	Asheville	NC	Solar	Intermediate	Yes	4.7			
Facility 496	Asheville	NC	Solar	Intermediate	Yes	10			
Facility 497	Wilmington	NC	Solar	Intermediate	Yes	9.9			
Facility 498	Youngsville	NC	Solar	Intermediate	Yes	2.6			
Facility 499	Chapel Hill	NC	Solar	Intermediate	Yes	3.5			
Facility 500	Apex	NC	Solar	Intermediate	Yes	2			
Facility 501	Cary	NC	Solar	Intermediate	Yes	5.006			
Facility 502	Unknown	NC	Hydroelectric	Baseload	Yes	80			
Facility 503	Angier	NC	Solar	Intermediate	Yes	5			
Facility 504	Wilmington	NC	Solar	Intermediate	Yes	4.08			
Facility 505	Raleigh	NC	Solar	Intermediate	Yes	3.89			
Facility 506	Raleigh	NC	Solar	Intermediate	Yes	3.3			
Facility 507	Fuquay Varina	NC	Solar	Intermediate	Yes	0.82			
Facility 508	Apex	NC	Solar	Intermediate	Yes	4.6			
Facility 509	Waynesville	NC	Solar	Intermediate	Yes	3.62			
Facility 510	Leicester	NC	Solar	Intermediate	Yes	9			
Facility 511	Raleigh	NC	Solar	Intermediate	Yes	4.43			
Facility 512	Cary	NC	Solar	Intermediate	Yes	2.72			
Facility 513	Cary	NC	Solar	Intermediate	Yes	3.61			
Facility 514	Chapel Hill	NC	Solar	Intermediate	Yes	3.25			
Facility 515	Chapel Hill	NC	Solar	Intermediate	Yes	6.13			
Facility 516	Swansboro	NC	Solar	Intermediate	Yes	2.517			
Facility 517	Cary	NC	Solar	Intermediate	Yes	5.07			
Facility 518	Black Mountain	NC	Solar	Intermediate	Yes	14.624			
Facility 519	Smithfield	NC	Landfill Gas	Intermediate	Yes	1760			
Facility 520	Asheville	NC	Solar	Intermediate	Yes	2.9			
Facility 521	Pinehurst	NC	Solar	Intermediate	Yes	2			
Facility 522	Bunn	NC	Solar	Intermediate	Yes	5000			
Facility 523	Raleigh	NC	Solar	Intermediate	Yes	12.1			

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 524	Raleigh	NC	Solar	Intermediate	Yes	11		
Facility 525	Raleigh	NC	Solar	Intermediate	Yes	39		
Facility 526	Raleigh	NC	Solar	Intermediate	Yes	19		
Facility 527	Raleigh	NC	Solar	Intermediate	Yes	23		
Facility 528	Raleigh	NC	Solar	Intermediate	Yes	3		
Facility 529	Raleigh	NC	Solar	Intermediate	Yes	2.3		
Facility 530	Wilmington	NC	Solar	Intermediate	Yes	9.6		
Facility 531	Wilmington	NC	Solar	Intermediate	Yes	60		
Facility 532	Wilmington	NC	Solar	Intermediate	Yes	24		
Facility 533	Wilmington	NC	Solar	Intermediate	Yes	5.4		
Facility 534	Franklinton	NC	Solar	Intermediate	Yes	3.9		
Facility 535	Canton	NC	Solar	Intermediate	Yes	2.58		
Facility 536	Weaverville	NC	Solar	Intermediate	Yes	9.05		
Facility 537	Atlantic beach	NC	Solar	Intermediate	Yes	3		
Facility 538	Hampstead	NC	Solar	Intermediate	Yes	3		
Facility 539	Robbins	NC	Solar	Intermediate	Yes	3.08		
Facility 540	Raleigh	NC	Solar	Intermediate	Yes	9.9		
Facility 541	Pittsboro	NC	Solar	Intermediate	Yes	3.023		
Facility 542	Asheville	NC	Solar	Intermediate	Yes	7.7		
Facility 543	Hampstead	NC	Solar	Intermediate	Yes	2.3		
Facility 544	Southern Pines	NC	Solar	Intermediate	Yes	3.1		
Facility 545	Cary	NC	Solar	Intermediate	Yes	5		
Facility 546	New Bern	NC	Solar	Intermediate	Yes	4.658		
Facility 547	Pollocksville	NC	Solar	Intermediate	Yes	300		
Facility 548	Kenansville	NC	Biomass	Intermediate	Yes	25000		
Facility 549	Coats	NC	Solar	Intermediate	Yes	4998		
Facility 550	Clayton	NC	Solar	Intermediate	Yes	6.023		
Facility 551	Fuquay Varina	NC	Solar	Intermediate	Yes	5.013		
Facility 552	Cary	NC	Solar	Intermediate	Yes	3.877		
Facility 553	Chapel Hill	NC	Solar	Intermediate	Yes	5.782		
Facility 554	Sanford	NC	Solar	Intermediate	Yes	4500		
Facility 555	Pittsboro	NC	Solar	Intermediate	Yes	3.6		
Facility 556	Laurinburg	NC	Solar	Intermediate	Yes	4.307		
Facility 557	Pittsboro	NC	Solar	Intermediate	Yes	10.993		
Facility 558	Asheville	NC	Solar	Intermediate	Yes	2.25		

on-Utility Generation	on (cont'd)					
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 559	Weaverville	NC	Solar	Intermediate	Yes	5.2
Facility 560	Raleigh	NC	Solar	Intermediate	Yes	6.074
Facility 561	Southport	NC	Solar	Intermediate	Yes	3.907
Facility 562	Sanford	NC	Solar	Intermediate	Yes	5.829
Facility 563	Raleigh	NC	Solar	Intermediate	Yes	9
Facility 564	Southern Pines	NC	Solar	Intermediate	Yes	5.5
Facility 565	Asheville	NC	Solar	Intermediate	Yes	15.88
Facility 566	Maxton	NC	Solar	Intermediate	Yes	3
Facility 567	Asheville	NC	Solar	Intermediate	Yes	4
Facility 568	Black Mountain	NC	Solar	Intermediate	Yes	0.441
Facility 569	Jacksonville	NC	Solar	Intermediate	Yes	14
Facility 570	Sanford	NC	Solar	Intermediate	Yes	9.42
Facility 571	Canton	NC	Solar	Intermediate	Yes	2.777
Facility 572	Pinehurst	NC	Solar	Intermediate	Yes	9.272
Facility 573	Clayton	NC	Solar	Intermediate	Yes	6.522
Facility 574	Weaverville	NC	Solar	Intermediate	Yes	6.18
Facility 575	Zebulon	NC	Solar	Intermediate	Yes	257
Facility 576	Pittsboro	NC	Solar	Intermediate	Yes	7.237
Facility 577	Raleigh	NC	Solar	Intermediate	Yes	2.49
Facility 578	Oxford	NC	Solar	Intermediate	Yes	4999
Facility 579	Asheville	NC	Solar	Intermediate	Yes	6.125
Facility 580	Raleigh	NC	Solar	Intermediate	Yes	4.495
Facility 581	Siler City	NC	Solar	Intermediate	Yes	5.38
Facility 582	Sanford	NC	Solar	Intermediate	Yes	4800
Facility 583	Asheville	NC	Solar	Intermediate	Yes	5.181
Facility 584	Lake Waccamaw	NC	Solar	Intermediate	Yes	4.658
Facility 585	Raleigh	NC	Solar	Intermediate	Yes	6.98
Facility 586	Blanch	NC	Solar	Intermediate	Yes	5.976
Facility 587	Cedar Falls	NC	Hydroelectric	Baseload	Yes	400
Facility 588	Sanford	NC	Solar	Intermediate	Yes	5.821
Facility 589	Roxboro	NC	Biomass	Intermediate	Yes	42000
Facility 590	Southport	NC	Biomass	Intermediate	Yes	80000
Facility 591	Fairview	NC	Solar	Intermediate	Yes	2.88
Facility 592	New Bern	NC	Biomass	Intermediate	Yes	48800
Facility 593	Garner	NC	Solar	Intermediate	Yes	4998

n-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 594	Oxford	NC	Solar	Intermediate	Yes	4999		
Facility 595	Raleigh	NC	Solar	Intermediate	Yes	4.341		
Facility 596	Kinston	NC	Solar	Intermediate	Yes	4998		
Facility 597	Biltmore Forest	NC	Solar	Intermediate	Yes	6.852		
Facility 598	Wilmington	NC	Solar	Intermediate	Yes	3.102		
Facility 599	Fuquay Varina	NC	Solar	Intermediate	Yes	3.371		
Facility 600	Oxford	NC	Solar	Intermediate	Yes	5000		
Facility 601	Raleigh	NC	Solar	Intermediate	Yes	7.471		
Facility 602	Pittsboro	NC	Solar	Intermediate	Yes	2.6		
Facility 603	Arden	NC	Solar	Intermediate	Yes	160		
Facility 604	Waynesville	NC	Solar	Intermediate	Yes	3.8		
Facility 605	Pittsboro	NC	Solar	Intermediate	Yes	2.88		
Facility 606	Asheville	NC	Solar	Intermediate	Yes	2.24		
Facility 607	Barnardsville	NC	Solar	Intermediate	Yes	7.6		
Facility 608	Asheville	NC	Solar	Intermediate	Yes	3		
Facility 609	Nashville	NC	Solar	Intermediate	Yes	4.5		
Facility 610	Raleigh	NC	Solar	Intermediate	Yes	2.37		
Facility 611	Ramseur	NC	Solar	Intermediate	Yes	4.5		
Facility 612	Wake Forest	NC	Solar	Intermediate	Yes	2.79		
Facility 613	Raleigh	NC	Solar	Intermediate	Yes	5.39		
Facility 614	Chapel Hill	NC	Solar	Intermediate	Yes	1.6		
Facility 615	Apex	NC	Solar	Intermediate	Yes	4.1		
Facility 616	Clayton	NC	Solar	Intermediate	Yes	3.95		
Facility 617	Sanford	NC	Solar	Intermediate	Yes	6		
Facility 618	Cary	NC	Solar	Intermediate	Yes	3.94		
Facility 619	Wilmington	NC	Solar	Intermediate	Yes	4.2		
Facility 620	Morrisville	NC	Solar	Intermediate	Yes	2.76		
Facility 621	Arden	NC	Solar	Intermediate	Yes	3.9		
Facility 622	Asheville	NC	Solar	Intermediate	Yes	4.123		
Facility 623	Asheville	NC	Solar	Intermediate	Yes	3.95		
Facility 624	Alexander	NC	Solar	Intermediate	Yes	2.01		
Facility 625	Ashville	NC	Solar	Intermediate	Yes	3.8		
Facility 626	Southern Pines	NC	Solar	Intermediate	Yes	1.63		
Facility 627	Morrisville	NC	Solar	Intermediate	Yes	3.49		
Facility 628	Knightdale	NC	Solar	Intermediate	Yes	2.95		

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in <u>Utility's</u> <u>Resources</u>	Capacity (AC kW)		
Facility 629	Wilmington	NC	Solar	Intermediate	Yes	6.336		
Facility 630	Cary	NC	Solar	Intermediate	Yes	4		
Facility 631	Asheville	NC	Solar	Intermediate	Yes	5.43		
Facility 632	Raleigh	NC	Solar	Intermediate	Yes	4.13		
Facility 633	Raleigh	NC	Solar	Intermediate	Yes	1.5		
Facility 634	Siler City	NC	Solar	Intermediate	Yes	8		
Facility 635	Wilmington	NC	Solar	Intermediate	Yes	4.02		
Facility 636	Pittsboro	NC	Solar	Intermediate	Yes	2.31		
Facility 637	Fairview	NC	Solar	Intermediate	Yes	8.65		
Facility 638	Cary	NC	Solar	Intermediate	Yes	3.85		
Facility 639	Wilmington	NC	Solar	Intermediate	Yes	7.115		
Facility 640	Raleigh	NC	Solar	Intermediate	Yes	3.5		
Facility 641	Raleigh	NC	Solar	Intermediate	Yes	6.05		
Facility 642	Angier	NC	Solar	Intermediate	Yes	1.72		
Facility 643	Pittsboro	NC	Solar	Intermediate	Yes	3.02		
Facility 644	Fuquay Varina	NC	Solar	Intermediate	Yes	3.5		
Facility 645	Cary	NC	Solar	Intermediate	Yes	2.48		
Facility 646	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 647	Cary	NC	Solar	Intermediate	Yes	4.5		
Facility 648	Raleigh	NC	Solar	Intermediate	Yes	24		
Facility 649	Raleigh	NC	Solar	Intermediate	Yes	57		
Facility 650	Raleigh	NC	Solar	Intermediate	Yes	73		
Facility 651	Asheville	NC	Solar	Intermediate	Yes	0.86		
Facility 652	Chapel Hill	NC	Solar	Intermediate	Yes	4.16		
Facility 653	Rougemont	NC	Solar	Intermediate	Yes	4.12		
Facility 654	Cameron	NC	Solar	Intermediate	Yes	2.58		
Facility 655	Raleigh	NC	Solar	Intermediate	Yes	4		
Facility 656	Nashville	NC	Solar	Intermediate	Yes	4.5		
Facility 657	Zebulon	NC	Solar	Intermediate	Yes	5.36		
Facility 658	Cary	NC	Solar	Intermediate	Yes	5.28		
Facility 659	Asheville	NC	Solar	Intermediate	Yes	4.128		
Facility 660	Raleigh	NC	Solar	Intermediate	Yes	1.92		
Facility 661	Cary	NC	Solar	Intermediate	Yes	5.23		
Facility 662	Asheville	NC	Solar	Intermediate	Yes	4.6		
Facility 663	Chapel Hill	NC	Solar	Intermediate	Yes	3.6		

on-Utility Generation	n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 664	Raleigh	NC	Solar	Intermediate	Yes	2.94			
Facility 665	Apex	NC	Solar	Intermediate	Yes	6.15			
Facility 666	Raleigh	NC	Solar	Intermediate	Yes	3.1			
Facility 667	Raleigh	NC	Solar	Intermediate	Yes	5.03			
Facility 668	Siler City	NC	Solar	Intermediate	Yes	8.81			
Facility 669	Asheville	NC	Solar	Intermediate	Yes	2.6			
Facility 670	Asheville	NC	Solar	Intermediate	Yes	4.4			
Facility 671	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 672	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 673	Asheville	NC	Solar	Intermediate	Yes	4.33			
Facility 674	Raleigh	NC	Solar	Intermediate	Yes	2.39			
Facility 675	Asheville	NC	Solar	Intermediate	Yes	8.75			
Facility 676	Pittsboro	NC	Solar	Intermediate	Yes	4.86			
Facility 677	Asheville	NC	Solar	Intermediate	Yes	3.75			
Facility 678	Wilmington	NC	Solar	Intermediate	Yes	4.57			
Facility 679	Castle Hayne	NC	Solar	Intermediate	Yes	58			
Facility 680	Bear Creek	NC	Solar	Intermediate	Yes	6.96			
Facility 681	Candler	NC	Solar	Intermediate	Yes	0.7			
Facility 682	Asheville	NC	Solar	Intermediate	Yes	4.47			
Facility 683	Pinehurst	NC	Solar	Intermediate	Yes	2.9			
Facility 684	West End	NC	Solar	Intermediate	Yes	4.28			
Facility 685	Asheville	NC	Solar	Intermediate	Yes	5.88			
Facility 686	Raleigh	NC	Solar	Intermediate	Yes	7.48			
Facility 687	Raleigh	NC	Solar	Intermediate	Yes	3.62			
Facility 688	Raleigh	NC	Solar	Intermediate	Yes	2.3			
Facility 689	Fairview	NC	Solar	Intermediate	Yes	5			
Facility 690	Wilmington	NC	Solar	Intermediate	Yes	8.8			
Facility 691	Apex	NC	Solar	Intermediate	Yes	3.58			
Facility 692	Raleigh	NC	Solar	Intermediate	Yes	1.76			
Facility 693	Clayton	NC	Solar	Intermediate	Yes	7.34			
Facility 694	Fairview	NC	Solar	Intermediate	Yes	8			
Facility 695	Bald Head Island	NC	Solar	Intermediate	Yes	4.63			
Facility 696	Raleigh	NC	Solar	Intermediate	Yes	2.4			
Facility 697	Asheville	NC	Solar	Intermediate	Yes	3.76			
Facility 698	Rolesville	NC	Solar	Intermediate	Yes	4			

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 699	Pittsboro	NC	Solar	Intermediate	Yes	5.2		
Facility 700	Raleigh	NC	Solar	Intermediate	Yes	2		
Facility 701	Wilmington	NC	Solar	Intermediate	Yes	5.325		
Facility 702	Pittsboro	NC	Solar	Intermediate	Yes	4.66		
Facility 703	Asheville	NC	Solar	Intermediate	Yes	5.558		
Facility 704	Asheboro	NC	Solar	Intermediate	Yes	2.38		
Facility 705	Asheville	NC	Solar	Intermediate	Yes	3.5		
Facility 706	Raleigh	NC	Solar	Intermediate	Yes	4		
Facility 707	Chapel Hill	NC	Solar	Intermediate	Yes	3.85		
Facility 708	Raleigh	NC	Solar	Intermediate	Yes	2.848		
Facility 709	Southern Pines	NC	Solar	Intermediate	Yes	9.15		
Facility 710	Wilmington	NC	Solar	Intermediate	Yes	5.23		
Facility 711	Apex	NC	Solar	Intermediate	Yes	7.19		
Facility 712	Holly Springs	NC	Solar	Intermediate	Yes	3.2		
Facility 713	Pembroke	NC	Solar	Intermediate	Yes	4800		
Facility 714	Ramseur	NC	Hydroelectric	Baseload	Yes	675		
Facility 715	Aberdeen	NC	Solar	Intermediate	Yes	3.254		
Facility 716	Fayetteville	NC	Solar	Intermediate	Yes	16.083		
Facility 717	Raleigh	NC	Solar	Intermediate	Yes	3.735		
Facility 718	Wilmington	NC	Solar	Intermediate	Yes	7.358		
Facility 719	Delco	NC	Solar	Intermediate	Yes	5000		
Facility 720	Asheville	NC	Solar	Intermediate	Yes	44		
Facility 721	Henderson	NC	Solar	Intermediate	Yes	4975		
Facility 722	Wilmington	NC	Solar	Intermediate	Yes	3.66		
Facility 723	Morrisville	NC	Solar	Intermediate	Yes	3		
Facility 724	Leland	NC	Solar	Intermediate	Yes	2.98		
Facility 725	Cary	NC	Solar	Intermediate	Yes	17.501		
Facility 726	Chadbourn	NC	Solar	Intermediate	Yes	5000		
Facility 727	Raleigh	NC	Solar	Intermediate	Yes	3.16		
Facility 728	Wake Forest	NC	Solar	Intermediate	Yes	5.94		
Facility 729	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 730	Fayetteville	NC	Solar	Intermediate	Yes	7.6		
Facility 731	Louisburg	NC	Solar	Intermediate	Yes	5.16		
Facility 732	Asheville	NC	Solar	Intermediate	Yes	4.74		
Facility 733	Raleigh	NC	Solar	Intermediate	Yes	4.24		

on-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 734	Fuquay Varina	NC	Solar	Intermediate	Yes	9.57			
Facility 735	Zebulon	NC	Solar	Intermediate	Yes	8.13			
Facility 736	Asheville	NC	Solar	Intermediate	Yes	6.044			
Facility 737	Weaverville	NC	Solar	Intermediate	Yes	3.391			
Facility 738	Wilmington	NC	Solar	Intermediate	Yes	2.43			
Facility 739	Cary	NC	Solar	Intermediate	Yes	7.28			
Facility 740	Asheville	NC	Solar	Intermediate	Yes	8			
Facility 741	Raleigh	NC	Solar	Intermediate	Yes	9.05			
Facility 742	Eagle Springs	NC	Solar	Intermediate	Yes	4.12			
Facility 743	Weaverville	NC	Solar	Intermediate	Yes	2.1			
Facility 744	Fletcher	NC	Solar	Intermediate	Yes	2.75			
Facility 745	West End	NC	Solar	Intermediate	Yes	5.58			
Facility 746	Zebulon	NC	Solar	Intermediate	Yes	5			
Facility 747	Leland	NC	Solar	Intermediate	Yes	3.77			
Facility 748	Raleigh	NC	Solar	Intermediate	Yes	5.54			
Facility 749	Raleigh	NC	Solar	Intermediate	Yes	5.3			
Facility 750	Chapel Hill	NC	Solar	Intermediate	Yes	4.72			
Facility 751	Biltmore Lake	NC	Solar	Intermediate	Yes	3.49			
Facility 752	Raleigh	NC	Solar	Intermediate	Yes	4.8			
Facility 753	Weaverville	NC	Solar	Intermediate	Yes	4.52			
Facility 754	Asheville	NC	Solar	Intermediate	Yes	4.75			
Facility 755	Biltmore	NC	Solar	Intermediate	Yes	1.72			
Facility 756	Weaverville	NC	Solar	Intermediate	Yes	3			
Facility 757	Wilmington	NC	Solar	Intermediate	Yes	2.4			
Facility 758	Wilmington	NC	Solar	Intermediate	Yes	3.82			
Facility 759	Garner	NC	Solar	Intermediate	Yes	8.42			
Facility 760	Wilmington	NC	Solar	Intermediate	Yes	4.63			
Facility 761	Cary	NC	Solar	Intermediate	Yes	3.76			
Facility 762	Pittsboro	NC	Solar	Intermediate	Yes	3.02			
Facility 763	Wilmington	NC	Solar	Intermediate	Yes	3			
Facility 764	Wilmington	NC	Solar	Intermediate	Yes	1.583			
Facility 765	Kure Beach	NC	Solar	Intermediate	Yes	5.42			
Facility 766	Zebulon	NC	Solar	Intermediate	Yes	5.68			
Facility 767	Hampstead	NC	Solar	Intermediate	Yes	4.33			
Facility 768	Morehead City	NC	Solar	Intermediate	Yes	3.9			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 769	Nashville	NC	Solar	Intermediate	Yes	3.4		
Facility 770	Chapel Hill	NC	Solar	Intermediate	Yes	2.32		
Facility 771	Waynesville	NC	Solar	Intermediate	Yes	2.88		
Facility 772	Raleigh	NC	Solar	Intermediate	Yes	0.25		
Facility 773	Asheville	NC	Solar	Intermediate	Yes	1.5		
Facility 774	Raleigh	NC	Solar	Intermediate	Yes	6.11		
Facility 775	Wilmington	NC	Solar	Intermediate	Yes	4.16		
Facility 776	Knightdale	NC	Solar	Intermediate	Yes	7.289		
Facility 777	Chapel Hill	NC	Solar	Intermediate	Yes	6.84		
Facility 778	Chapel Hill	NC	Solar	Intermediate	Yes	6.3		
Facility 779	Raleigh	NC	Solar	Intermediate	Yes	2.94		
Facility 780	Morehead City	NC	Solar	Intermediate	Yes	9		
Facility 781	Apex	NC	Solar	Intermediate	Yes	3.7		
Facility 782	Raleigh	NC	Solar	Intermediate	Yes	16		
Facility 783	Angier	NC	Solar	Intermediate	Yes	4.47		
Facility 784	Sanford	NC	Solar	Intermediate	Yes	5.6		
Facility 785	Cary	NC	Solar	Intermediate	Yes	6.05		
Facility 786	Candler	NC	Solar	Intermediate	Yes	4.817		
Facility 787	Asheville	NC	Solar	Intermediate	Yes	5.278		
Facility 788	Southport	NC	Solar	Intermediate	Yes	5.208		
Facility 789	Raleigh	NC	Solar	Intermediate	Yes	5.979		
Facility 791	Kenansville	NC	Solar	Intermediate	Yes	5000		
Facility 792	Warsaw	NC	Solar	Intermediate	Yes	5000		
Facility 793	Raleigh	NC	Solar	Intermediate	Yes	5.16		
Facility 794	Southern Pines	NC	Solar	Intermediate	Yes	6.547		
Facility 795	Raleigh	NC	Solar	Intermediate	Yes	10		
Facility 796	Raleigh	NC	Solar	Intermediate	Yes	10.484		
Facility 797	Raleigh	NC	Solar	Intermediate	Yes	2.7		
Facility 798	Goldsboro	NC	Solar	Intermediate	Yes	1999		
Facility 799	Cary	NC	Solar	Intermediate	Yes	8.8		
Facility 800	Laurinburg	NC	Solar	Intermediate	Yes	5000		
Facility 801	Weaverville	NC	Solar	Intermediate	Yes	42		
Facility 802	Fuquay Varina	NC	Solar	Intermediate	Yes	3.8		
Facility 803	Carthage	NC	Solar	Intermediate	Yes	9.628		
Facility 804	Raleigh	NC	Solar	Intermediate	Yes	3.29		

n-Utility Generatio	n (cont a)				Inclusion in	
Facility Name	City/County	State	Primary Fuel Type	Designation	Utility's Resources	Capacity (AC kW)
Facility 805	Vass	NC	Solar	Intermediate	Yes	7.4
Facility 806	Arden	NC	Solar	Intermediate	Yes	7.22
Facility 807	Raleigh	NC	Solar	Intermediate	Yes	3.63
Facility 808	Vass	NC	Solar	Intermediate	Yes	3.66
Facility 809	Raleigh	NC	Solar	Intermediate	Yes	3.98
Facility 810	Asheville	NC	Solar	Intermediate	Yes	7.35
Facility 811	Asheville	NC	Solar	Intermediate	Yes	7.35
Facility 812	Asheville	NC	Solar	Intermediate	Yes	3
Facility 813	Pittsboro	NC	Solar	Intermediate	Yes	2
Facility 814	Holly Springs	NC	Solar	Intermediate	Yes	3.75
Facility 815	Asheville	NC	Solar	Intermediate	Yes	3.5
Facility 816	Wilmington	NC	Solar	Intermediate	Yes	4.73
Facility 817	Asheville	NC	Solar	Intermediate	Yes	3.597
Facility 818	Spring Hope	NC	Solar	Intermediate	Yes	176
Facility 819	Spring Hope	NC	Solar	Intermediate	Yes	158.182
Facility 820	Spring Hope	NC	Solar	Intermediate	Yes	93
Facility 821	Wilmington	NC	Solar	Intermediate	Yes	7.29
Facility 822	Garner	NC	Solar	Intermediate	Yes	4
Facility 823	Cary	NC	Solar	Intermediate	Yes	4.33
Facility 824	Raleigh	NC	Solar	Intermediate	Yes	3
Facility 825	Asheville	NC	Solar	Intermediate	Yes	5
Facility 826	Troy	NC	Landfill Gas	Intermediate	Yes	6400
Facility 827	Pittsboro	NC	Solar	Intermediate	Yes	6.4
Facility 828	Asheville	NC	Solar	Intermediate	Yes	4.109
Facility 829	Cary	NC	Solar	Intermediate	Yes	2.84
Facility 830	Pittsboro	NC	Solar	Intermediate	Yes	5.86
Facility 831	Pittsboro	NC	Solar	Intermediate	Yes	3.01
Facility 832	Asheville	NC	Solar	Intermediate	Yes	3.6
Facility 833	Chapel Hill	NC	Solar	Intermediate	Yes	4.27
Facility 834	Apex	NC	Solar	Intermediate	Yes	2.57
Facility 835	Pittsboro	NC	Solar	Intermediate	Yes	3.74
Facility 836	Bahama	NC	Solar	Intermediate	Yes	5.81
Facility 837	Asheville	NC	Solar	Intermediate	Yes	4.31
Facility 838	Cary	NC	Solar	Intermediate	Yes	10.915
Facility 839	Raleigh	NC	Solar	Intermediate	Yes	4.68

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 840	Asheville	NC	Solar	Intermediate	Yes	7.6		
Facility 841	Wilmington	NC	Solar	Intermediate	Yes	12.787		
Facility 842	Weaverville	NC	Solar	Intermediate	Yes	4		
Facility 843	Sanford	NC	Solar	Intermediate	Yes	5000		
Facility 844	Willard	NC	Solar	Intermediate	Yes	4.07		
Facility 845	Pittsboro	NC	Solar	Intermediate	Yes	3.18		
Facility 846	Fairview	NC	Solar	Intermediate	Yes	7.76		
Facility 847	Asheville	NC	Solar	Intermediate	Yes	5.89		
Facility 848	Raleigh	NC	Solar	Intermediate	Yes	3.62		
Facility 849	Pittsboro	NC	Solar	Intermediate	Yes	2.52		
Facility 850	Wilmington	NC	Solar	Intermediate	Yes	4.89		
Facility 851	Alexander	NC	Landfill Gas	Intermediate	Yes	983		
Facility 852	Burnsville	NC	Solar	Intermediate	Yes	5		
Facility 853	Burnsville	NC	Solar	Intermediate	Yes	2		
Facility 854	Henderson	NC	Solar	Intermediate	Yes	4.917		
Facility 855	Cary	NC	Solar	Intermediate	Yes	7.915		
Facility 856	Wilmington	NC	Solar	Intermediate	Yes	8.68		
Facility 857	Holly Springs	NC	Solar	Intermediate	Yes	1.974		
Facility 858	Fuquay Varina	NC	Solar	Intermediate	Yes	8.5		
Facility 859	Wilmington	NC	Solar	Intermediate	Yes	4.42		
Facility 860	Pittsboro	NC	Solar	Intermediate	Yes	5.12		
Facility 861	Canton	NC	Solar	Intermediate	Yes	2		
Facility 862	Asheville	NC	Solar	Intermediate	Yes	6.88		
Facility 863	Asheville	NC	Solar	Intermediate	Yes	4		
Facility 864	Asheville	NC	Solar	Intermediate	Yes	4.82		
Facility 865	Asheville	NC	Solar	Intermediate	Yes	8.143		
Facility 866	Dunn	NC	Solar	Intermediate	Yes	4950		
Facility 867	Four Oaks	NC	Solar	Intermediate	Yes	5000		
Facility 868	Fletcher	NC	Solar	Intermediate	Yes	424		
Facility 869	Newton Grove	NC	Solar	Intermediate	Yes	1980		
Facility 870	Princeton	NC	Solar	Intermediate	Yes	5000		
Facility 871	New Bern	NC	Solar	Intermediate	Yes	977.9		
Facility 872	Chapel Hill	NC	Solar	Intermediate	Yes	2.5		
Facility 873	Leland	NC	Solar	Intermediate	Yes	53		
Facility 874	Asheville	NC	Solar	Intermediate	Yes	3.7		

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 875	Henderson	NC	Solar	Intermediate	Yes	152		
Facility 876	Raleigh	NC	Solar	Intermediate	Yes	2.5		
Facility 877	Raleigh	NC	Solar	Intermediate	Yes	2.09		
Facility 878	Hampstead	NC	Solar	Intermediate	Yes	3.09		
Facility 879	Candler	NC	Solar	Intermediate	Yes	5.62		
Facility 880	Wilmington	NC	Solar	Intermediate	Yes	6.98		
Facility 881	Pittsboro	NC	Solar	Intermediate	Yes	4.495		
Facility 882	Asheville	NC	Solar	Intermediate	Yes	2.65		
Facility 883	Weaverville	NC	Solar	Intermediate	Yes	3.84		
Facility 884	Weaverville	NC	Solar	Intermediate	Yes	3.84		
Facility 885	Troy	NC	Hydroelectric	Baseload	Yes	792		
Facility 886	Raleigh	NC	Solar	Intermediate	Yes	452.76		
Facility 887	Grifton	NC	Solar	Intermediate	Yes	4500		
Facility 888	Asheville	NC	Solar	Intermediate	Yes	110		
Facility 889	Asheville	NC	Solar	Intermediate	Yes	3		
Facility 890	Garner	NC	Solar	Intermediate	Yes	24		
Facility 891	Raleigh	NC	Solar	Intermediate	Yes	4.5		
Facility 892	Fairview	NC	Solar	Intermediate	Yes	7.7		
Facility 893	Faison	NC	Solar	Intermediate	Yes	1900		
Facility 894	Cary	NC	Solar	Intermediate	Yes	2		
Facility 895	Asheville	NC	Solar	Intermediate	Yes	2.097		
Facility 896	Raleigh	NC	Solar	Intermediate	Yes	3.5		
Facility 897	Asheville	NC	Solar	Intermediate	Yes	1.678		
Facility 898	Weaverville	NC	Solar	Intermediate	Yes	4.844		
Facility 899	Angier	NC	Solar	Intermediate	Yes	5.96		
Facility 900	Sanford	NC	Solar	Intermediate	Yes	9.235		
Facility 901	Chapel Hill	NC	Solar	Intermediate	Yes	1000		
Facility 902	Apex	NC	Solar	Intermediate	Yes	8.018		
Facility 903	Candler	NC	Solar	Intermediate	Yes	134.4		
Facility 904	New Hill	NC	Solar	Intermediate	Yes	7.96		
Facility 905	Angier	NC	Solar	Intermediate	Yes	3.35		
Facility 906	Leland	NC	Solar	Intermediate	Yes	2.946		
Facility 907	Rougemont	NC	Solar	Intermediate	Yes	2.77		
Facility 908	Asheville	NC	Solar	Intermediate	Yes	4.875		
Facility 909	Black Mountain	NC	Solar	Intermediate	Yes	11.4		

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 910	Raleigh	NC	Solar	Intermediate	Yes	565		
Facility 911	Raleigh	NC	Solar	Intermediate	Yes	1000		
Facility 912	Asheville	NC	Solar	Intermediate	Yes	8		
Facility 913	Asheville	NC	Solar	Intermediate	Yes	3.689		
Facility 914	Roxboro	NC	Solar	Intermediate	Yes	4.478		
Facility 915	Weaverville	NC	Solar	Intermediate	Yes	19		
Facility 916	Raleigh	NC	Solar	Intermediate	Yes	3.645		
Facility 917	Fairmont	NC	Solar	Intermediate	Yes	4999		
Facility 918	Canton	NC	Solar	Intermediate	Yes	440		
Facility 919	Apex	NC	Solar	Intermediate	Yes	1500		
Facility 920	Clyde	NC	Solar	Intermediate	Yes	77		
Facility 921	Canton	NC	Solar	Intermediate	Yes	66		
Facility 922	Fairmont	NC	Solar	Intermediate	Yes	4320		
Facility 923	Ellerbe	NC	Solar	Intermediate	Yes	1999		
Facility 924	Lumberton	NC	Solar	Intermediate	Yes	1999		
Facility 925	Raleigh	NC	Solar	Intermediate	Yes	204		
Facility 926	Raleigh	NC	Solar	Intermediate	Yes	81		
Facility 927	Raleigh	NC	Solar	Intermediate	Yes	8.528		
Facility 928	Lumberton	NC	Solar	Intermediate	Yes	4320		
Facility 929	Albertson	NC	Solar	Intermediate	Yes	4800		
Facility 930	Orrum	NC	Solar	Intermediate	Yes	4999		
Facility 931	Hope Mills	NC	Diesel	Peak	Yes	350		
Facility 932	Cary	NC	Diesel	Peak	Yes	350		
Facility 933	Raleigh	NC	Diesel	Peak	Yes	350		
Facility 934	Clayton	NC	Diesel	Peak	Yes	438		
Facility 935	Morrisville	NC	Diesel	Peak	Yes	438		
Facility 936	Whispering Pines	NC	Diesel	Peak	Yes	438		
Facility 937	Asheville	NC	Solar	Intermediate	Yes	3.4		
Facility 938	Asheville	NC	Solar	Intermediate	Yes	1.818		
Facility 939	Biltmore Lake	NC	Solar	Intermediate	Yes	6.652		
Facility 940	Garner	NC	Solar	Intermediate	Yes	15		
Facility 941	Clayton	NC	Solar	Intermediate	Yes	6.398		
Facility 942	Sanford	NC	Solar	Intermediate	Yes	9.647		
Facility 943	Raleigh	NC	Solar	Intermediate	Yes	2.644		
Facility 944	West End	NC	Solar	Intermediate	Yes	5000		

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 945	Hampstead	NC	Solar	Intermediate	Yes	4.2		
Facility 946	Asheville	NC	Solar	Intermediate	Yes	2.9		
Facility 947	Stem	NC	Solar	Intermediate	Yes	5.379		
Facility 948	Raleigh	NC	Solar	Intermediate	Yes	4.5		
Facility 949	Asheville	NC	Solar	Intermediate	Yes	3.8		
Facility 950	Asheboro	NC	Solar	Intermediate	Yes	4.1		
Facility 951	Asheville	NC	Solar	Intermediate	Yes	3.14		
Facility 952	Louisburg	NC	Solar	Intermediate	Yes	1999		
Facility 953	Louisburg	NC	Solar	Intermediate	Yes	2000		
Facility 954	Louisburg	NC	Solar	Intermediate	Yes	5000		
Facility 955	Arden	NC	Solar	Intermediate	Yes	4.04		
Facility 956	Raleigh	NC	Solar	Intermediate	Yes	3		
Facility 957	Apex	NC	Solar	Intermediate	Yes	5.32		
Facility 958	Apex	NC	Solar	Intermediate	Yes	5.05		
Facility 959	Castle Hayne	NC	Solar	Intermediate	Yes	3.3		
Facility 960	Siler City	NC	Solar	Intermediate	Yes	4.216		
Facility 961	Elm City	NC	Solar	Intermediate	Yes	5000		
Facility 962	Cordova	NC	Solar	Intermediate	Yes	5000		
Facility 963	Fayetteville	NC	Solar	Intermediate	Yes	5000		
Facility 964	Snow Hill	NC	Solar	Intermediate	Yes	5000		
Facility 965	Asheboro	NC	Solar	Intermediate	Yes	5000		
Facility 966	Asheville	NC	Solar	Intermediate	Yes	1.56		
Facility 967	Willow Springs	NC	Solar	Intermediate	Yes	5000		
Facility 968	Beulaville	NC	Solar	Intermediate	Yes	4.826		
Facility 969	Raleigh	NC	Solar	Intermediate	Yes	51		
Facility 970	Oxford	NC	Solar	Intermediate	Yes	4.91		
Facility 971	Chapel Hill	NC	Solar	Intermediate	Yes	1.2		
Facility 972	Angier	NC	Solar	Intermediate	Yes	8.149		
Facility 973	Staley	NC	Solar	Intermediate	Yes	5.502		
Facility 974	Moncure	NC	Solar	Intermediate	Yes	3.56		
Facility 975	Clarkton	NC	Solar	Intermediate	Yes	1999		
Facility 976	Cary	NC	Solar	Intermediate	Yes	7.566		
Facility 977	Zebulon	NC	Solar	Intermediate	Yes	5.731		
Facility 978	Chadbourn	NC	Solar	Intermediate	Yes	3800		
Facility 979	Cary	NC	Solar	Intermediate	Yes	4.7		

n-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 980	Clayton	NC	Solar	Intermediate	Yes	4.026		
Facility 981	Raleigh	NC	Solar	Intermediate	Yes	3.13		
Facility 982	Raleigh	NC	Solar	Intermediate	Yes	2.58		
Facility 983	Leicester	NC	Solar	Intermediate	Yes	4.608		
Facility 984	Willow Springs	NC	Solar	Intermediate	Yes	2.05		
Facility 985	Roxboro	NC	Solar	Intermediate	Yes	2.36		
Facility 986	Roxboro	NC	Solar	Intermediate	Yes	11.6		
Facility 987	La Grange	NC	Solar	Intermediate	Yes	11.4		
Facility 988	Rocky Point	NC	Solar	Intermediate	Yes	2.3		
Facility 989	Asheville	NC	Solar	Intermediate	Yes	4.286		
Facility 990	Asheville	NC	Solar	Intermediate	Yes	2.33		
Facility 991	Cary	NC	Solar	Intermediate	Yes	3.72		
Facility 992	Beaufort	NC	Solar	Intermediate	Yes	2.59		
Facility 993	Louisburg	NC	Solar	Intermediate	Yes	5		
Facility 994	Asheville	NC	Solar	Intermediate	Yes	2.7		
Facility 995	Spring Hope	NC	Solar	Intermediate	Yes	10		
Facility 996	Garner	NC	Solar	Intermediate	Yes	6.02		
Facility 997	Wilmington	NC	Solar	Intermediate	Yes	2.34		
Facility 998	Wilmington	NC	Solar	Intermediate	Yes	5.18		
Facility 999	Pittsboro	NC	Solar	Intermediate	Yes	1.8		
Facility 1000	Pittsboro	NC	Solar	Intermediate	Yes	3.6		
Facility 1001	Chapel Hill	NC	Solar	Intermediate	Yes	2.41		
Facility 1002	Asheville	NC	Solar	Intermediate	Yes	3.8		
Facility 1003	Wilmington	NC	Solar	Intermediate	Yes	4.18		
Facility 1004	Fairview	NC	Solar	Intermediate	Yes	2.8		
Facility 1005	Fuquay Varina	NC	Solar	Intermediate	Yes	4.28		
Facility 1006	Princeton	NC	Solar	Intermediate	Yes	3.99		
Facility 1007	Garner	NC	Solar	Intermediate	Yes	3.95		
Facility 1008	Cary	NC	Solar	Intermediate	Yes	3.4		
Facility 1009	Chapel Hill	NC	Solar	Intermediate	Yes	6		
Facility 1010	Chapel Hill	NC	Solar	Intermediate	Yes	3.08		
Facility 1011	Asheville	NC	Solar	Intermediate	Yes	3.26		
Facility 1012	Selma	NC	Solar	Intermediate	Yes	4.72		
Facility 1013	Candler	NC	Solar	Intermediate	Yes	7.25		
Facility 1014	Asheville	NC	Solar	Intermediate	Yes	2.93		

Non-Utility Generatio	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1015	Asheboro	NC	Solar	Intermediate	Yes	3.599			
Facility 1016	Raleigh	NC	Solar	Intermediate	Yes	5.618			
Facility 1017	Pikeville	NC	Solar	Intermediate	Yes	5.831			
Facility 1018	Hampstead	NC	Solar	Intermediate	Yes	8.337			
Facility 1019	Cary	NC	Solar	Intermediate	Yes	8.128			
Facility 1020	Wilmington	NC	Solar	Intermediate	Yes	3.78			
Facility 1021	Chapel Hill	NC	Solar	Intermediate	Yes	2.08			
Facility 1022	Norlina	NC	Solar	Intermediate	Yes	384			
Facility 1023	Fletcher	NC	Solar	Intermediate	Yes	6.45			
Facility 1024	Asheville	NC	Solar	Intermediate	Yes	5.07			
Facility 1025	Raleigh	NC	Solar	Intermediate	Yes	3			
Facility 1026	Wendell	NC	Solar	Intermediate	Yes	2.83			
Facility 1027	Asheville	NC	Solar	Intermediate	Yes	17.363			
Facility 1028	Garner	NC	Solar	Intermediate	Yes	3.663			
Facility 1029	Raleigh	NC	Solar	Intermediate	Yes	2.528			
Facility 1030	Cary	NC	Solar	Intermediate	Yes	5.547			
Facility 1031	Cary	NC	Solar	Intermediate	Yes	1.841			
Facility 1032	Newport	NC	Solar	Intermediate	Yes	7.6			
Facility 1033	Wilmington	NC	Solar	Intermediate	Yes	6.792			
Facility 1034	Chapel Hill	NC	Solar	Intermediate	Yes	2.861			
Facility 1035	Asheville	NC	Solar	Intermediate	Yes	7.933			
Facility 1036	Raleigh	NC	Solar	Intermediate	Yes	5.992			
Facility 1037	Oriental	NC	Solar	Intermediate	Yes	3.6			
Facility 1038	Zebulon	NC	Solar	Intermediate	Yes	5.5			
Facility 1039	Raleigh	NC	Solar	Intermediate	Yes	3.89			
Facility 1040	Raleigh	NC	Solar	Intermediate	Yes	8.12			
Facility 1041	Raleigh	NC	Solar	Intermediate	Yes	2.72			
Facility 1042	Pittsboro	NC	Solar	Intermediate	Yes	2.2			
Facility 1044	Barnardsville	NC	Solar	Intermediate	Yes	2.7			
Facility 1045	Oxford	NC	Solar	Intermediate	Yes	2750			
Facility 1046	Wake Forest	NC	Solar	Intermediate	Yes	7.19			
Facility 1047	Fairview	NC	Solar	Intermediate	Yes	9			
Facility 1048	Chapel Hill	NC	Solar	Intermediate	Yes	14			
Facility 1049	Bahama	NC	Solar	Intermediate	Yes	3.66			
Facility 1050	Cary	NC	Solar	Intermediate	Yes	4.545			

Ion-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1051	Kinston	NC	Solar	Intermediate	Yes	192.5			
Facility 1052	Carolina Beach	NC	Solar	Intermediate	Yes	4.28			
Facility 1053	Hampstead	NC	Solar	Intermediate	Yes	4.15			
Facility 1054	Fletcher	NC	Solar	Intermediate	Yes	2.52			
Facility 1055	Asheville	NC	Solar	Intermediate	Yes	8.4			
Facility 1056	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1057	Carolina Beach	NC	Solar	Intermediate	Yes	4.39			
Facility 1058	Garner	NC	Solar	Intermediate	Yes	160			
Facility 1059	Asheville	NC	Solar	Intermediate	Yes	4.73			
Facility 1060	Pittsboro	NC	Solar	Intermediate	Yes	4.89			
Facility 1061	Asheville	NC	Solar	Intermediate	Yes	3.84			
Facility 1062	Pittsboro	NC	Solar	Intermediate	Yes	6.372			
Facility 1063	Cary	NC	Solar	Intermediate	Yes	6.8			
Facility 1064	Pittsboro	NC	Solar	Intermediate	Yes	7.06			
Facility 1065	Pittsboro	NC	Solar	Intermediate	Yes	3.52			
Facility 1066	Willow Spring	NC	Solar	Intermediate	Yes	6.054			
Facility 1067	Willow Springs	NC	Solar	Intermediate	Yes	7.289			
Facility 1068	Raleigh	NC	Solar	Intermediate	Yes	5.61			
Facility 1069	Blanch	NC	Solar	Intermediate	Yes	5.019			
Facility 1070	Cary	NC	Solar	Intermediate	Yes	3.9			
Facility 1071	Raleigh	NC	Solar	Intermediate	Yes	2.53			
Facility 1072	Asheville	NC	Solar	Intermediate	Yes	2.5			
Facility 1073	Calypso	NC	Solar	Intermediate	Yes	5.59			
Facility 1074	Raleigh	NC	Solar	Intermediate	Yes	2.64			
Facility 1075	Sanford	NC	Solar	Intermediate	Yes	3.83			
Facility 1076	Cary	NC	Solar	Intermediate	Yes	4.2			
Facility 1077	Sanford	NC	Solar	Intermediate	Yes	3.766			
Facility 1078	Apex	NC	Solar	Intermediate	Yes	70.67			
Facility 1079	Apex	NC	Solar	Intermediate	Yes	6.317			
Facility 1080	Weaverville	NC	Solar	Intermediate	Yes	3.797			
Facility 1081	Waynesville	NC	Solar	Intermediate	Yes	4.063			
Facility 1082	Hope Mills	NC	Solar	Intermediate	Yes	4.609			
Facility 1083	Asheville	NC	Solar	Intermediate	Yes	7.083			
Facility 1084	Cary	NC	Solar	Intermediate	Yes	5.262			
Facility 1085	Henderson	NC	Solar	Intermediate	Yes	5.111			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1086	Garner	NC	Solar	Intermediate	Yes	7.127			
Facility 1087	Clayton	NC	Solar	Intermediate	Yes	6.317			
Facility 1088	Asheboro	NC	Solar	Intermediate	Yes	3.724			
Facility 1089	Benson	NC	Solar	Intermediate	Yes	4000			
Facility 1090	Fairview	NC	Solar	Intermediate	Yes	3.216			
Facility 1091	Raleigh	NC	Solar	Intermediate	Yes	1.81			
Facility 1092	Lake Junaluska	NC	Solar	Intermediate	Yes	3.663			
Facility 1093	Hamlet	NC	Solar	Intermediate	Yes	4.214			
Facility 1094	Raleigh	NC	Solar	Intermediate	Yes	3.261			
Facility 1095	Goldsboro	NC	Solar	Intermediate	Yes	13.766			
Facility 1096	Beaufort	NC	Solar	Intermediate	Yes	5.825			
Facility 1097	Fairview	NC	Solar	Intermediate	Yes	2.373			
Facility 1098	Cary	NC	Solar	Intermediate	Yes	4.97			
Facility 1099	Raleigh	NC	Solar	Intermediate	Yes	4.36			
Facility 1100	Mt Olive	NC	Solar	Intermediate	Yes	4999			
Facility 1101	Morehead City	NC	Diesel	Peak	Yes	875			
Facility 1102	Wilmington	NC	Diesel	Peak	Yes	750			
Facility 1103	Wilmington	NC	Solar	Intermediate	Yes	4.093			
Facility 1104	Roxboro	NC	Solar	Intermediate	Yes	4.752			
Facility 1105	Ashville	NC	Solar	Intermediate	Yes	5.877			
Facility 1106	Biscoe	NC	Solar	Intermediate	Yes	3.088			
Facility 1107	Raleigh	NC	Solar	Intermediate	Yes	7.235			
Facility 1108	Pinebluff	NC	Solar	Intermediate	Yes	2.795			
Facility 1109	Chapel Hill	NC	Solar	Intermediate	Yes	10.32			
Facility 1110	Asheville	NC	Solar	Intermediate	Yes	2.88			
Facility 1111	Raleigh	NC	Solar	Intermediate	Yes	3.73			
Facility 1112	Raleigh	NC	Solar	Intermediate	Yes	3.001			
Facility 1113	Leland	NC	Solar	Intermediate	Yes	5.136			
Facility 1114	Cary	NC	Solar	Intermediate	Yes	7.307			
Facility 1115	Beulaville	NC	Solar	Intermediate	Yes	1999			
Facility 1116	Bailey	NC	Solar	Intermediate	Yes	3.87			
Facility 1117	Raleigh	NC	Solar	Intermediate	Yes	5.5			
Facility 1118	Rocky Mount	NC	Solar	Intermediate	Yes	5.013			
Facility 1119	Angier	NC	Solar	Intermediate	Yes	12.042			
Facility 1120	Asheville	NC	Solar	Intermediate	Yes	4.571			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1121	Waynesville	NC	Solar	Intermediate	Yes	5.251			
Facility 1122	Troy	NC	Solar	Intermediate	Yes	4950			
Facility 1123	Willow Spring	NC	Solar	Intermediate	Yes	1999			
Facility 1124	Sanford	NC	Solar	Intermediate	Yes	4.64			
Facility 1125	Raleigh	NC	Solar	Intermediate	Yes	2			
Facility 1126	Raleigh	NC	Solar	Intermediate	Yes	3.043			
Facility 1127	Siler City	NC	Solar	Intermediate	Yes	6.97			
Facility 1128	Asheville	NC	Solar	Intermediate	Yes	2.92			
Facility 1129	Troy	NC	Solar	Intermediate	Yes	5000			
Facility 1130	Clayton	NC	Solar	Intermediate	Yes	7.508			
Facility 1131	Asheville	NC	Solar	Intermediate	Yes	4.223			
Facility 1132	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 1133	Apex	NC	Solar	Intermediate	Yes	2.42			
Facility 1134	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 1135	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 1136	Black Mountain	NC	Solar	Intermediate	Yes	5			
Facility 1137	Siler City	NC	Solar	Intermediate	Yes	3.87			
Facility 1138	Fairview	NC	Solar	Intermediate	Yes	4.525			
Facility 1139	Cary	NC	Solar	Intermediate	Yes	4.52			
Facility 1140	Arden	NC	Solar	Intermediate	Yes	1.44			
Facility 1141	Pittsboro	NC	Solar	Intermediate	Yes	6.6			
Facility 1142	Pittsboro	NC	Solar	Intermediate	Yes	2.77			
Facility 1143	Asheville	NC	Solar	Intermediate	Yes	4.28			
Facility 1144	Wilmington	NC	Solar	Intermediate	Yes	4.842			
Facility 1145	Raleigh	NC	Solar	Intermediate	Yes	4.165			
Facility 1146	Henderson	NC	Solar	Intermediate	Yes	100			
Facility 1147	Henderson	NC	Solar	Intermediate	Yes	125			
Facility 1148	Laurinburg	NC	Solar	Intermediate	Yes	5000			
Facility 1149	Pittsboro	NC	Solar	Intermediate	Yes	8.578			
Facility 1150	Hubert	NC	Solar	Intermediate	Yes	6.98			
Facility 1151	Asheville	NC	Solar	Intermediate	Yes	250			
Facility 1152	Raleigh	NC	Solar	Intermediate	Yes	45			
Facility 1153	Spruce Pine	NC	Solar	Intermediate	Yes	17			
Facility 1154	Spruce Pine	NC	Solar	Intermediate	Yes	3.8			
Facility 1155	Grifton	NC	Solar	Intermediate	Yes	4999			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1156	Alexander	NC	Solar	Intermediate	Yes	3.521			
Facility 1157	Stoney Creek	NC	Solar	Intermediate	Yes	5000			
Facility 1158	Asheville	NC	Solar	Intermediate	Yes	5.001			
Facility 1159	Fayetteville	NC	Solar	Intermediate	Yes	5.136			
Facility 1160	carthage	NC	Solar	Intermediate	Yes	6.335			
Facility 1161	Clayton	NC	Solar	Intermediate	Yes	4.719			
Facility 1162	Asheville	NC	Solar	Intermediate	Yes	23.28			
Facility 1163	Arden	NC	Solar	Intermediate	Yes	3			
Facility 1164	Raleigh	NC	Solar	Intermediate	Yes	9.476			
Facility 1165	Siler City	NC	Solar	Intermediate	Yes	4.1			
Facility 1166	Peachland	NC	Solar	Intermediate	Yes	2.56			
Facility 1167	Kure Beach	NC	Solar	Intermediate	Yes	3.113			
Facility 1168	Asheboro	NC	Solar	Intermediate	Yes	5.831			
Facility 1169	Cary	NC	Solar	Intermediate	Yes	4.11			
Facility 1170	Maxton	NC	Solar	Intermediate	Yes	19800			
Facility 1171	Wilmington	NC	Solar	Intermediate	Yes	7.358			
Facility 1172	Raleigh	NC	Solar	Intermediate	Yes	18.421			
Facility 1173	Trenton	NC	Solar	Intermediate	Yes	4950			
Facility 1174	Raleigh	NC	Solar	Intermediate	Yes	3.84			
Facility 1175	Arden	NC	Solar	Intermediate	Yes	4.842			
Facility 1176	Marshall	NC	Wind	Intermediate	Yes	1.84			
Facility 1177	Raleigh	NC	Solar	Intermediate	Yes	4.9			
Facility 1178	Spruce Pine	NC	Solar	Intermediate	Yes	4.6			
Facility 1179	Apex	NC	Solar	Intermediate	Yes	6.44			
Facility 1180	Fuquay Varina	NC	Solar	Intermediate	Yes	4.97			
Facility 1181	Wilmington	NC	Solar	Intermediate	Yes	6.37			
Facility 1182	Lillington	NC	Solar	Intermediate	Yes	6.381			
Facility 1183	Asheville	NC	Solar	Intermediate	Yes	15.2			
Facility 1184	Raleigh	NC	Solar	Intermediate	Yes	2.924			
Facility 1185	Clayton	NC	Solar	Intermediate	Yes	2.907			
Facility 1186	Lake Junaluska	NC	Solar	Intermediate	Yes	2.916			
Facility 1187	Raleigh	NC	Solar	Intermediate	Yes	3.586			
Facility 1188	Raleigh	NC	Solar	Intermediate	Yes	6.372			
Facility 1189	Weaverville	NC	Solar	Intermediate	Yes	4.537			
Facility 1190	Asheville	NC	Solar	Intermediate	Yes	6.479			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1191	High Falls	NC	Hydroelectric	Baseload	Yes	600			
Facility 1192	Greensboro	NC	Hydroelectric	Baseload	Yes	990			
Facility 1193	Oxford	NC	Solar	Intermediate	Yes	200			
Facility 1194	Oxford	NC	Solar	Intermediate	Yes	158			
Facility 1195	Williston	NC	Solar	Intermediate	Yes	7.9			
Facility 1196	Asheville	NC	Solar	Intermediate	Yes	84			
Facility 1197	Weaverville	NC	Solar	Intermediate	Yes	5.717			
Facility 1198	Raleigh	NC	Solar	Intermediate	Yes	6.382			
Facility 1199	New Bern	NC	Landfill Gas	Intermediate	Yes	4000			
Facility 1200	Apex	NC	Landfill Gas	Intermediate	Yes	7300			
Facility 1201	Raleigh	NC	Solar	Intermediate	Yes	5			
Facility 1202	Canton	NC	Solar	Intermediate	Yes	1300			
Facility 1203	Bladenboro	NC	Solar	Intermediate	Yes	34200			
Facility 1204	Albertson	NC	Solar	Intermediate	Yes	2000			
Facility 1205	Morven	NC	Solar	Intermediate	Yes	78700			
Facility 1206	Ivanhoe	NC	Solar	Intermediate	Yes	38900			
Facility 1207	Shannon	NC	Solar	Intermediate	Yes	4999			
Facility 1208	Hope Mill	NC	Solar	Intermediate	Yes	78500			
Facility 1209	Maxton	NC	Solar	Intermediate	Yes	35000			
Facility 1210	Maxton	NC	Solar	Intermediate	Yes	4999			
Facility 1211	Nashville	NC	Solar	Intermediate	Yes	1980			
Facility 1212	Leicester	NC	Solar	Intermediate	Yes	1990			
Facility 1213	Leicester	NC	Solar	Intermediate	Yes	800			
Facility 1214	Leicester	NC	Solar	Intermediate	Yes	800			
Facility 1215	Nashville	NC	Solar	Intermediate	Yes	1981			
Facility 1216	Snow Hill	NC	Solar	Intermediate	Yes	4995			
Facility 1217	Clinton	NC	Solar	Intermediate	Yes	4995			
Facility 1218	Laurinburg	NC	Solar	Intermediate	Yes	4995			
Facility 1219	Vanceboro	NC	Biomass	Intermediate	Yes	5000			
Facility 1220	Cove City	NC	Solar	Intermediate	Yes	7.738			
Facility 1221	Asheville	NC	Solar	Intermediate	Yes	2.1			
Facility 1222	Raleigh	NC	Solar	Intermediate	Yes	4.4			
Facility 1223	Carolina Beach	NC	Solar	Intermediate	Yes	1			
Facility 1224	Wilmington	NC	Solar	Intermediate	Yes	4.869			
Facility 1225	Goldsboro	NC	Solar	Intermediate	Yes	9.683			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1226	Raleigh	NC	Solar	Intermediate	Yes	5.546			
Facility 1227	Raleigh	NC	Solar	Intermediate	Yes	4.5			
Facility 1228	Cary	NC	Solar	Intermediate	Yes	3.8			
Facility 1229	Pittsboro	NC	Solar	Intermediate	Yes	1.632			
Facility 1230	Carolina Beach	NC	Solar	Intermediate	Yes	2.5			
Facility 1231	Waynesville	NC	Solar	Intermediate	Yes	5.679			
Facility 1232	Roxboro	NC	Solar	Intermediate	Yes	1.85			
Facility 1233	Wilmington	NC	Solar	Intermediate	Yes	6.34			
Facility 1234	Candler	NC	Solar	Intermediate	Yes	9.5			
Facility 1235	Asheville	NC	Solar	Intermediate	Yes	6.8			
Facility 1236	Cary	NC	Solar	Intermediate	Yes	2.19			
Facility 1237	Siler City	NC	Solar	Intermediate	Yes	4.7			
Facility 1238	Siler City	NC	Solar	Intermediate	Yes	4.8			
Facility 1239	Dudley	NC	Solar	Intermediate	Yes	22.31			
Facility 1240	Godwin	NC	Solar	Intermediate	Yes	5.123			
Facility 1241	Wilmington	NC	Solar	Intermediate	Yes	6.792			
Facility 1242	Asheville	NC	Solar	Intermediate	Yes	2.02			
Facility 1243	Cary	NC	Solar	Intermediate	Yes	6.482			
Facility 1244	Fairview	NC	Solar	Intermediate	Yes	3.47			
Facility 1245	Broadway	NC	Solar	Intermediate	Yes	8.55			
Facility 1246	Broadway	NC	Solar	Intermediate	Yes	8.5			
Facility 1248	Broadway	NC	Solar	Intermediate	Yes	5.83			
Facility 1249	Fuquay Varnia	NC	Solar	Intermediate	Yes	2.49			
Facility 1250	Asheville	NC	Solar	Intermediate	Yes	7.68			
Facility 1251	Pittsboro	NC	Solar	Intermediate	Yes	4.83			
Facility 1252	Raleigh	NC	Solar	Intermediate	Yes	5.45			
Facility 1253	Asheville	NC	Solar	Intermediate	Yes	4.16			
Facility 1254	Cary	NC	Solar	Intermediate	Yes	3.82			
Facility 1255	Pittsboro	NC	Solar	Intermediate	Yes	2.24			
Facility 1256	Raleigh	NC	Solar	Intermediate	Yes	5.7			
Facility 1257	Pinehurst	NC	Solar	Intermediate	Yes	2.29			
Facility 1258	Wilmington	NC	Solar	Intermediate	Yes	4			
Facility 1259	Hampstead	NC	Solar	Intermediate	Yes	9.89			
Facility 1260	Candler	NC	Solar	Intermediate	Yes	3.36			
Facility 1261	West End	NC	Solar	Intermediate	Yes	4.93			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1262	Chapel Hill	NC	Solar	Intermediate	Yes	6			
Facility 1263	Clayton	NC	Solar	Intermediate	Yes	2.7			
Facility 1264	Pittsboro	NC	Solar	Intermediate	Yes	1.8			
Facility 1265	Wake Forest	NC	Solar	Intermediate	Yes	2.4			
Facility 1266	Wilmington	NC	Solar	Intermediate	Yes	2.6			
Facility 1267	Cary	NC	Solar	Intermediate	Yes	2.5			
Facility 1268	Henderson	NC	Solar	Intermediate	Yes	5.54			
Facility 1269	Holly Springs	NC	Solar	Intermediate	Yes	3.8			
Facility 1270	Black Mountain	NC	Solar	Intermediate	Yes	2.752			
Facility 1271	Pittsboro	NC	Solar	Intermediate	Yes	6			
Facility 1272	Cary	NC	Solar	Intermediate	Yes	4.5			
Facility 1273	Fuquay Varina	NC	Solar	Intermediate	Yes	6.57			
Facility 1274	Pinehurst	NC	Solar	Intermediate	Yes	6.75			
Facility 1275	Hampstead	NC	Solar	Intermediate	Yes	3.03			
Facility 1276	Cameron	NC	Solar	Intermediate	Yes	3.43			
Facility 1277	Fremont	NC	Solar	Intermediate	Yes	1.54			
Facility 1278	Raleigh	NC	Solar	Intermediate	Yes	6.35			
Facility 1279	Fletcher	NC	Solar	Intermediate	Yes	3.672			
Facility 1280	Pittsboro	NC	Solar	Intermediate	Yes	7.58			
Facility 1281	Fletcher	NC	Solar	Intermediate	Yes	9.48			
Facility 1282	Hampstead	NC	Solar	Intermediate	Yes	2.34			
Facility 1283	Raleigh	NC	Solar	Intermediate	Yes	5.88			
Facility 1284	Cary	NC	Solar	Intermediate	Yes	3			
Facility 1285	Fairview	NC	Solar	Intermediate	Yes	3			
Facility 1286	Goldsboro	NC	Solar	Intermediate	Yes	5.81			
Facility 1287	Pittsboro	NC	Solar	Intermediate	Yes	4.89			
Facility 1288	Henderson	NC	Solar	Intermediate	Yes	4.001			
Facility 1289	Fairview	NC	Solar	Intermediate	Yes	4.24			
Facility 1290	Fairview	NC	Solar	Intermediate	Yes	3.84			
Facility 1291	Apex	NC	Solar	Intermediate	Yes	4.62			
Facility 1292	Pittsboro	NC	Solar	Intermediate	Yes	2.41			
Facility 1293	Weaverville	NC	Solar	Intermediate	Yes	4.3			
Facility 1294	Chapel Hill	NC	Solar	Intermediate	Yes	4.1			
Facility 1295	Montreat	NC	Solar	Intermediate	Yes	2.45			
Facility 1296	Clayton	NC	Solar	Intermediate	Yes	3.6			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1297	Weaverville	NC	Solar	Intermediate	Yes	6			
Facility 1298	Raleigh	NC	Solar	Intermediate	Yes	3.72			
Facility 1299	Asheville	NC	Solar	Intermediate	Yes	4.42			
Facility 1300	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 1301	New Bern	NC	Solar	Intermediate	Yes	3			
Facility 1302	Asheville	NC	Solar	Intermediate	Yes	7.5			
Facility 1303	Kure Beach	NC	Solar	Intermediate	Yes	5.3			
Facility 1304	Wilmington	NC	Solar	Intermediate	Yes	1.165			
Facility 1305	Asheville	NC	Solar	Intermediate	Yes	3.78			
Facility 1306	Apex	NC	Solar	Intermediate	Yes	5.78			
Facility 1307	Cary	NC	Solar	Intermediate	Yes	9.94			
Facility 1308	Raleigh	NC	Solar	Intermediate	Yes	2.55			
Facility 1309	Raleigh	NC	Solar	Intermediate	Yes	3.26			
Facility 1310	Cary	NC	Solar	Intermediate	Yes	4			
Facility 1311	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 1312	Raleigh	NC	Solar	Intermediate	Yes	4.07			
Facility 1313	Wilmington	NC	Solar	Intermediate	Yes	3.1			
Facility 1314	Raleigh	NC	Solar	Intermediate	Yes	3.74			
Facility 1315	Raleigh	NC	Solar	Intermediate	Yes	3.54			
Facility 1316	Raleigh	NC	Solar	Intermediate	Yes	5			
Facility 1317	Raleigh	NC	Solar	Intermediate	Yes	2.9			
Facility 1318	Cary	NC	Solar	Intermediate	Yes	1.5			
Facility 1319	Raleigh	NC	Solar	Intermediate	Yes	4.34			
Facility 1320	Cary	NC	Solar	Intermediate	Yes	5.988			
Facility 1321	Maggie Valley	NC	Solar	Intermediate	Yes	7.68			
Facility 1322	Raleigh	NC	Solar	Intermediate	Yes	2.88			
Facility 1323	New Hill	NC	Solar	Intermediate	Yes	2.9			
Facility 1324	Raleigh	NC	Solar	Intermediate	Yes	1.54			
Facility 1325	Garner	NC	Solar	Intermediate	Yes	5.16			
Facility 1326	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 1327	Asheville	NC	Solar	Intermediate	Yes	2.06			
Facility 1328	Swannanoa	NC	Solar	Intermediate	Yes	3.8			
Facility 1329	Holly Springs	NC	Solar	Intermediate	Yes	3.27			
Facility 1330	Wilmington	NC	Solar	Intermediate	Yes	1.8			
Facility 1331	Wilmington	NC	Solar	Intermediate	Yes	5.9			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1332	Raleigh	NC	Solar	Intermediate	Yes	1.8			
Facility 1333	Raleigh	NC	Solar	Intermediate	Yes	3.68			
Facility 1334	Raleigh	NC	Solar	Intermediate	Yes	3.24			
Facility 1335	Cary	NC	Solar	Intermediate	Yes	4.26			
Facility 1336	Holly Springs	NC	Solar	Intermediate	Yes	6			
Facility 1337	Leland	NC	Solar	Intermediate	Yes	4.605			
Facility 1338	Raleigh	NC	Solar	Intermediate	Yes	5.531			
Facility 1339	Dunn	NC	Solar	Intermediate	Yes	6.777			
Facility 1340	Holly Springs	NC	Solar	Intermediate	Yes	4.94			
Facility 1341	Wilmington	NC	Solar	Intermediate	Yes	8.78			
Facility 1342	Black Mountain	NC	Solar	Intermediate	Yes	4.73			
Facility 1343	Raleigh	NC	Solar	Intermediate	Yes	3.08			
Facility 1344	Cary	NC	Solar	Intermediate	Yes	3.88			
Facility 1345	Fletcher	NC	Solar	Intermediate	Yes	6.12			
Facility 1346	Raleigh	NC	Solar	Intermediate	Yes	3.51			
Facility 1347	Chapel Hill	NC	Solar	Intermediate	Yes	3.98			
Facility 1348	Holly Springs	NC	Solar	Intermediate	Yes	4.83			
Facility 1349	Fayetteville	NC	Solar	Intermediate	Yes	4.1			
Facility 1350	Vass	NC	Solar	Intermediate	Yes	6.24			
Facility 1351	Fuquay Varina	NC	Solar	Intermediate	Yes	4.4			
Facility 1352	Pittsboro	NC	Solar	Intermediate	Yes	1.57			
Facility 1353	Pittsboro	NC	Solar	Intermediate	Yes	3.62			
Facility 1354	Louisburg	NC	Solar	Intermediate	Yes	6.508			
Facility 1355	Pittsboro	NC	Solar	Intermediate	Yes	2.3			
Facility 1356	Benson	NC	Solar	Intermediate	Yes	6.35			
Facility 1357	Alexander	NC	Solar	Intermediate	Yes	5			
Facility 1358	Holly Springs	NC	Solar	Intermediate	Yes	6			
Facility 1359	Pittsboro	NC	Solar	Intermediate	Yes	3.23			
Facility 1360	Weaverville	NC	Solar	Intermediate	Yes	3.05			
Facility 1361	Raleigh	NC	Solar	Intermediate	Yes	3.92			
Facility 1362	Cary	NC	Solar	Intermediate	Yes	4.5			
Facility 1363	Apex	NC	Solar	Intermediate	Yes	1.898			
Facility 1364	Cary	NC	Solar	Intermediate	Yes	1.5			
Facility 1365	Cary	NC	Solar	Intermediate	Yes	5.27			
Facility 1366	Raleigh	NC	Solar	Intermediate	Yes	5.64			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1367	Henderson	NC	Solar	Intermediate	Yes	3			
Facility 1368	Fuquay Varina	NC	Solar	Intermediate	Yes	2.58			
Facility 1369	Apex	NC	Solar	Intermediate	Yes	3.46			
Facility 1370	Pittsboro	NC	Solar	Intermediate	Yes	3.57			
Facility 1371	Fuquay Varina	NC	Solar	Intermediate	Yes	5.3			
Facility 1372	Laurinburg	NC	Solar	Intermediate	Yes	2.2			
Facility 1373	Laurinburg	NC	Solar	Intermediate	Yes	1.72			
Facility 1374	Wilmington	NC	Solar	Intermediate	Yes	1			
Facility 1375	Candler	NC	Solar	Intermediate	Yes	2.26			
Facility 1376	Clyde	NC	Solar	Intermediate	Yes	2.88			
Facility 1377	Chapel Hill	NC	Solar	Intermediate	Yes	5.11			
Facility 1378	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 1379	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 1380	Garner	NC	Solar	Intermediate	Yes	2.37			
Facility 1381	Asheville	NC	Solar	Intermediate	Yes	2.06			
Facility 1382	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 1383	Weaverville	NC	Solar	Intermediate	Yes	4.38			
Facility 1384	Weaverville	NC	Solar	Intermediate	Yes	5.16			
Facility 1385	Cary	NC	Solar	Intermediate	Yes	4.01			
Facility 1386	Weaverville	NC	Solar	Intermediate	Yes	3.45			
Facility 1387	Weaverville	NC	Solar	Intermediate	Yes	1.51			
Facility 1388	Candler	NC	Solar	Intermediate	Yes	6.1			
Facility 1389	Wilmington	NC	Solar	Intermediate	Yes	2.4			
Facility 1390	Wilmington	NC	Solar	Intermediate	Yes	2.5			
Facility 1391	Fairview	NC	Solar	Intermediate	Yes	5.33			
Facility 1392	Fuquay Varina	NC	Solar	Intermediate	Yes	6.22			
Facility 1393	Chapel Hill	NC	Solar	Intermediate	Yes	5.16			
Facility 1394	Pittsboro	NC	Solar	Intermediate	Yes	3.6			
Facility 1395	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 1396	Wake Forest	NC	Solar	Intermediate	Yes	2.35			
Facility 1397	Wilmington	NC	Solar	Intermediate	Yes	2.39			
Facility 1398	Southern Pines	NC	Solar	Intermediate	Yes	7.3			
Facility 1399	Raleigh	NC	Solar	Intermediate	Yes	9.29			
Facility 1400	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1401	Raleigh	NC	Solar	Intermediate	Yes	2.7			

lon-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1402	Pittsboro	NC	Solar	Intermediate	Yes	4			
Facility 1403	Vass	NC	Solar	Intermediate	Yes	4.03			
Facility 1404	Alexander	NC	Solar	Intermediate	Yes	2.8			
Facility 1405	Cary	NC	Solar	Intermediate	Yes	4.2			
Facility 1406	Raleigh	NC	Solar	Intermediate	Yes	9.02			
Facility 1407	Jacksonville	NC	Solar	Intermediate	Yes	2.48			
Facility 1408	Barnardsville	NC	Solar	Intermediate	Yes	3.64			
Facility 1409	Barnardsville	NC	Solar	Intermediate	Yes	3.64			
Facility 1410	Black Mountain	NC	Solar	Intermediate	Yes	6			
Facility 1411	New Hill	NC	Solar	Intermediate	Yes	2.89			
Facility 1412	Raleigh	NC	Solar	Intermediate	Yes	5.66			
Facility 1413	Wilmington	NC	Solar	Intermediate	Yes	3.69			
Facility 1414	Hampstead	NC	Solar	Intermediate	Yes	3			
Facility 1415	Morehead City	NC	Solar	Intermediate	Yes	2.54			
Facility 1416	Humpstead	NC	Solar	Intermediate	Yes	4			
Facility 1417	Raleigh	NC	Solar	Intermediate	Yes	4.58			
Facility 1418	Raleigh	NC	Solar	Intermediate	Yes	4.5			
Facility 1419	Pittsboro	NC	Solar	Intermediate	Yes	5			
Facility 1420	Sanford	NC	Solar	Intermediate	Yes	4.38			
Facility 1421	Raleigh	NC	Solar	Intermediate	Yes	6.88			
Facility 1422	Raleigh	NC	Solar	Intermediate	Yes	9			
Facility 1423	Asheville	NC	Solar	Intermediate	Yes	4.3			
Facility 1424	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 1425	Roxboro	NC	Solar	Intermediate	Yes	3.31			
Facility 1426	Chapel Hill	NC	Solar	Intermediate	Yes	4.69			
Facility 1427	Zebulon	NC	Solar	Intermediate	Yes	9.9			
Facility 1428	Asheville	NC	Solar	Intermediate	Yes	5.16			
Facility 1429	Raleigh	NC	Solar	Intermediate	Yes	3.46			
Facility 1430	Wilmington	NC	Solar	Intermediate	Yes	2.81			
Facility 1431	Pinehurst	NC	Solar	Intermediate	Yes	4			
Facility 1432	Carolina Beach	NC	Solar	Intermediate	Yes	3.41			
Facility 1433	Pittsboro	NC	Solar	Intermediate	Yes	6.97			
Facility 1434	Bakersville	NC	Solar	Intermediate	Yes	3.2			
Facility 1435	Asheville	NC	Solar	Intermediate	Yes	1.75			
Facility 1436	Raleigh	NC	Solar	Intermediate	Yes	3.42			

Non-Utility Generation	on (cont'd)					
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 1437	Alexander	NC	Solar	Intermediate	Yes	6.64
Facility 1438	Wilmington	NC	Solar	Intermediate	Yes	5.34
Facility 1439	Raleigh	NC	Solar	Intermediate	Yes	4.22
Facility 1440	Asheville	NC	Solar	Intermediate	Yes	2.82
Facility 1441	Chapel Hill	NC	Solar	Intermediate	Yes	3.37
Facility 1442	Asheville	NC	Solar	Intermediate	Yes	1.6
Facility 1443	Garner	NC	Solar	Intermediate	Yes	4.26
Facility 1444	Louisburg	NC	Solar	Intermediate	Yes	3.672
Facility 1445	Raleigh	NC	Solar	Intermediate	Yes	3.27
Facility 1446	Cary	NC	Solar	Intermediate	Yes	2.304
Facility 1447	Cary	NC	Solar	Intermediate	Yes	3
Facility 1448	Siler City	NC	Solar	Intermediate	Yes	4.2
Facility 1449	Siler City	NC	Solar	Intermediate	Yes	2.5
Facility 1450	Willow Springs	NC	Solar	Intermediate	Yes	3
Facility 1451	Lilesville	NC	Solar	Intermediate	Yes	1.72
Facility 1452	Weaverville	NC	Solar	Intermediate	Yes	3.96
Facility 1453	Wilmington	NC	Solar	Intermediate	Yes	2.29
Facility 1454	Raleigh	NC	Solar	Intermediate	Yes	2.4
Facility 1455	Raleigh	NC	Solar	Intermediate	Yes	3.72
Facility 1456	Asheville	NC	Solar	Intermediate	Yes	7.6
Facility 1457	Wilmington	NC	Solar	Intermediate	Yes	1
Facility 1458	Cary	NC	Solar	Intermediate	Yes	3.85
Facility 1459	Rose Hill	NC	Biomass	Intermediate	Yes	100
Facility 1460	Woodfin	NC	Solar	Intermediate	Yes	5.278
Facility 1461	Raleigh	NC	Solar	Intermediate	Yes	3.951
Facility 1462	Asheville	NC	Solar	Intermediate	Yes	7.83
Facility 1463	Wilmington	NC	Solar	Intermediate	Yes	5.928
Facility 1464	Benson	NC	Solar	Intermediate	Yes	4.933
Facility 1465	Fairview	NC	Solar	Intermediate	Yes	2.7
Facility 1466	Pittsboro	NC	Solar	Intermediate	Yes	4.08
Facility 1467	Hampstead	NC	Solar	Intermediate	Yes	4
Facility 1468	Asheboro	NC	Solar	Intermediate	Yes	5
Facility 1469	Cary	NC	Solar	Intermediate	Yes	2.6
Facility 1470	Canton	NC	Solar	Intermediate	Yes	9.18
Facility 1471	Fuquay Varina	NC	Solar	Intermediate	Yes	4.13

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 1472	Asheville	NC	Solar	Intermediate	Yes	2		
Facility 1473	Chapel Hill	NC	Solar	Intermediate	Yes	4.158		
Facility 1474	Asheville	NC	Solar	Intermediate	Yes	4.16		
Facility 1475	Fairview	NC	Solar	Intermediate	Yes	5		
Facility 1476	Garner	NC	Solar	Intermediate	Yes	4.019		
Facility 1477	Battleboro	NC	Solar	Intermediate	Yes	9.263		
Facility 1478	Pittsboro	NC	Solar	Intermediate	Yes	3.466		
Facility 1479	Garner	NC	Solar	Intermediate	Yes	4.396		
Facility 1480	Cary	NC	Solar	Intermediate	Yes	4.83		
Facility 1481	New Hill	NC	Hydroelectric	Baseload	Yes	4400		
Facility 1482	Siler City	NC	Solar	Intermediate	Yes	1.5		
Facility 1483	Weaverville	NC	Solar	Intermediate	Yes	6.28		
Facility 1484	Rose Hill	NC	Solar	Intermediate	Yes	6.49		
Facility 1485	Henderson	NC	Solar	Intermediate	Yes	4.7		
Facility 1486	Raleigh	NC	Solar	Intermediate	Yes	8		
Facility 1487	Mount Olive	NC	Solar	Intermediate	Yes	2.26		
Facility 1488	Raleigh	NC	Solar	Intermediate	Yes	2.76		
Facility 1489	Raleigh	NC	Solar	Intermediate	Yes	4.66		
Facility 1490	Wilmington	NC	Solar	Intermediate	Yes	2.75		
Facility 1491	Raleigh	NC	Solar	Intermediate	Yes	2.03		
Facility 1492	Asheboro	NC	Solar	Intermediate	Yes	5.34		
Facility 1493	Raleigh	NC	Solar	Intermediate	Yes	3.15		
Facility 1494	Black Mountain	NC	Solar	Intermediate	Yes	6.24		
Facility 1495	Goldsboro	NC	Solar	Intermediate	Yes	4.06		
Facility 1496	Asheville	NC	Solar	Intermediate	Yes	4.3		
Facility 1497	Raleigh	NC	Solar	Intermediate	Yes	6.75		
Facility 1498	Raleigh	NC	Solar	Intermediate	Yes	4.85		
Facility 1499	Wendell	NC	Solar	Intermediate	Yes	5.76		
Facility 1500	Pinehurst	NC	Solar	Intermediate	Yes	2.45		
Facility 1501	Benson	NC	Solar	Intermediate	Yes	3.76		
Facility 1502	Cary	NC	Solar	Intermediate	Yes	2.75		
Facility 1503	Pittsboro	NC	Solar	Intermediate	Yes	2.48		
Facility 1504	Cary	NC	Solar	Intermediate	Yes	5.92		
Facility 1505	Rocky Mount	NC	Solar	Intermediate	Yes	5.534		
Facility 1506	Four Oaks	NC	Solar	Intermediate	Yes	6.207		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1507	Raleigh	NC	Solar	Intermediate	Yes	1000			
Facility 1508	Fayetteville	NC	Solar	Intermediate	Yes	7.5			
Facility 1509	Leland	NC	Solar	Intermediate	Yes	5.886			
Facility 1510	Raleigh	NC	Solar	Intermediate	Yes	1.72			
Facility 1511	Weaverville	NC	Solar	Intermediate	Yes	7.34			
Facility 1512	Cary	NC	Solar	Intermediate	Yes	5.08			
Facility 1513	Asheville	NC	Solar	Intermediate	Yes	5.16			
Facility 1514	Black Mountain	NC	Solar	Intermediate	Yes	4.27			
Facility 1515	Aberdeen	NC	Solar	Intermediate	Yes	11.59			
Facility 1516	Aberdeen	NC	Solar	Intermediate	Yes	10			
Facility 1517	Asheville	NC	Solar	Intermediate	Yes	1.74			
Facility 1518	Bahama	NC	Solar	Intermediate	Yes	6			
Facility 1519	Barnardsville	NC	Solar	Intermediate	Yes	1.92			
Facility 1520	Cameron	NC	Solar	Intermediate	Yes	8.6			
Facility 1521	Raleigh	NC	Solar	Intermediate	Yes	2.43			
Facility 1522	Southern Pines	NC	Solar	Intermediate	Yes	6			
Facility 1523	Southern Pines	NC	Solar	Intermediate	Yes	7.8			
Facility 1524	Asheville	NC	Solar	Intermediate	Yes	1.73			
Facility 1525	Willow Springs	NC	Solar	Intermediate	Yes	8.508			
Facility 1526	Raleigh	NC	Solar	Intermediate	Yes	3.02			
Facility 1527	Cary	NC	Solar	Intermediate	Yes	4.16			
Facility 1528	Asheville	NC	Solar	Intermediate	Yes	22.5			
Facility 1529	Asheville	NC	Solar	Intermediate	Yes	22.5			
Facility 1530	Raleigh	NC	Solar	Intermediate	Yes	2.4			
Facility 1531	Asheville	NC	Solar	Intermediate	Yes	2.616			
Facility 1532	Wilmington	NC	Solar	Intermediate	Yes	4.051			
Facility 1533	Raleigh	NC	Solar	Intermediate	Yes	5.66			
Facility 1534	Cary	NC	Solar	Intermediate	Yes	4.398			
Facility 1535	Morrisville	NC	Solar	Intermediate	Yes	3.9			
Facility 1536	Morrisville	NC	Solar	Intermediate	Yes	3.636			
Facility 1537	Pinehurst	NC	Solar	Intermediate	Yes	8.2			
Facility 1538	Cary	NC	Solar	Intermediate	Yes	9.9			
Facility 1539	Raleigh	NC	Solar	Intermediate	Yes	2.02			
Facility 1540	Weaverville	NC	Solar	Intermediate	Yes	3.29			
Facility 1541	Weaverville	NC	Solar	Intermediate	Yes	2.66			

Ion-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1542	Alexander	NC	Solar	Intermediate	Yes	3.1			
Facility 1543	Swannanoa	NC	Solar	Intermediate	Yes	1.46			
Facility 1544	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 1545	Pittsboro	NC	Solar	Intermediate	Yes	3.75			
Facility 1546	Leicester	NC	Solar	Intermediate	Yes	6			
Facility 1547	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 1548	Chapel Hill	NC	Solar	Intermediate	Yes	2.34			
Facility 1549	Chapel Hill	NC	Solar	Intermediate	Yes	4.32			
Facility 1550	Asheville	NC	Solar	Intermediate	Yes	6.78			
Facility 1551	Pittsboro	NC	Solar	Intermediate	Yes	2.9			
Facility 1552	Cary	NC	Solar	Intermediate	Yes	7.9			
Facility 1553	Morehead City	NC	Solar	Intermediate	Yes	2.04			
Facility 1554	Cary	NC	Solar	Intermediate	Yes	3.05			
Facility 1555	Raleigh	NC	Solar	Intermediate	Yes	2.58			
Facility 1556	Cary	NC	Solar	Intermediate	Yes	3.79			
Facility 1557	Siler City	NC	Solar	Intermediate	Yes	3.53			
Facility 1558	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1559	Pittsboro	NC	Solar	Intermediate	Yes	2.5			
Facility 1560	Pittsboro	NC	Solar	Intermediate	Yes	1.7			
Facility 1561	Cary	NC	Solar	Intermediate	Yes	2.3			
Facility 1562	Angier	NC	Solar	Intermediate	Yes	2.98			
Facility 1563	Weaverville	NC	Solar	Intermediate	Yes	3.7			
Facility 1564	Canton	NC	Solar	Intermediate	Yes	6.88			
Facility 1565	Raleigh	NC	Solar	Intermediate	Yes	3.775			
Facility 1566	Apex	NC	Solar	Intermediate	Yes	1.807			
Facility 1567	Four Oaks	NC	Solar	Intermediate	Yes	5000			
Facility 1568	Pittsboro	NC	Solar	Intermediate	Yes	7.977			
Facility 1569	Sanford	NC	Solar	Intermediate	Yes	10.312			
Facility 1570	Carolina Beach	NC	Solar	Intermediate	Yes	3.5			
Facility 1571	Carolina Beach	NC	Solar	Intermediate	Yes	4.3			
Facility 1572	Raleigh	NC	Solar	Intermediate	Yes	6.6			
Facility 1573	Siler City	NC	Solar	Intermediate	Yes	7.1			
Facility 1574	Biscoe	NC	Solar	Intermediate	Yes	3.44			
Facility 1575	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1576	Cary	NC	Solar	Intermediate	Yes	2.94			

lon-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1577	Candler	NC	Solar	Intermediate	Yes	1			
Facility 1578	Candler	NC	Solar	Intermediate	Yes	0.86			
Facility 1579	Asheville	NC	Solar	Intermediate	Yes	7.6			
Facility 1580	Raleigh	NC	Solar	Intermediate	Yes	3.01			
Facility 1581	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 1582	Raleigh	NC	Solar	Intermediate	Yes	3.33			
Facility 1583	Saint Pauls	NC	Solar	Intermediate	Yes	2.31			
Facility 1584	Wilmington	NC	Solar	Intermediate	Yes	3.118			
Facility 1585	Swannanoa	NC	Solar	Intermediate	Yes	1.829			
Facility 1586	Pinehurst	NC	Solar	Intermediate	Yes	2.88			
Facility 1587	Chapel Hill	NC	Solar	Intermediate	Yes	3.53			
Facility 1588	Pinehurst	NC	Solar	Intermediate	Yes	5.09			
Facility 1589	Clinton	NC	Solar	Intermediate	Yes	4.44			
Facility 1590	Morehead City	NC	Solar	Intermediate	Yes	3.25			
Facility 1591	Kenansville	NC	Solar	Intermediate	Yes	1999			
Facility 1592	Kenansville	NC	Solar	Intermediate	Yes	4500			
Facility 1593	Warsaw	NC	Solar	Intermediate	Yes	1999			
Facility 1594	Warsaw	NC	Solar	Intermediate	Yes	4999			
Facility 1595	Asheville	NC	Solar	Intermediate	Yes	3.7			
Facility 1596	Maggie Valley	NC	Solar	Intermediate	Yes	7.6			
Facility 1597	Raleigh	NC	Solar	Intermediate	Yes	1.8			
Facility 1598	Pinehurst	NC	Solar	Intermediate	Yes	10.14			
Facility 1599	Holly Springs	NC	Solar	Intermediate	Yes	5.27			
Facility 1600	Asheville	NC	Solar	Intermediate	Yes	3.4			
Facility 1601	Warrenton	NC	Solar	Intermediate	Yes	3000			
Facility 1602	Fairview	NC	Solar	Intermediate	Yes	4.71			
Facility 1603	Fremont	NC	Solar	Intermediate	Yes	6			
Facility 1604	Wilmington	NC	Solar	Intermediate	Yes	5			
Facility 1605	Fayetteville	NC	Solar	Intermediate	Yes	6.962			
Facility 1606	Asheville	NC	Solar	Intermediate	Yes	3.2			
Facility 1607	Cary	NC	Solar	Intermediate	Yes	4.341			
Facility 1608	Goldsboro	NC	Solar	Intermediate	Yes	4.77			
Facility 1609	Smithfield	NC	Solar	Intermediate	Yes	5.48			
Facility 1610	Wilmington	NC	Solar	Intermediate	Yes	1.44			
Facility 1611	Canton	NC	Solar	Intermediate	Yes	11.52			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1612	Apex	NC	Solar	Intermediate	Yes	6.27			
Facility 1613	Wilmington	NC	Solar	Intermediate	Yes	4.3			
Facility 1614	Wilmington	NC	Solar	Intermediate	Yes	4			
Facility 1615	Cary	NC	Solar	Intermediate	Yes	2.823			
Facility 1616	Cary	NC	Solar	Intermediate	Yes	4.1			
Facility 1617	Asheville	NC	Solar	Intermediate	Yes	9.187			
Facility 1618	Chapel Hill	NC	Solar	Intermediate	Yes	4.9			
Facility 1619	Rolesville	NC	Solar	Intermediate	Yes	3.504			
Facility 1620	Raleigh	NC	Solar	Intermediate	Yes	4.628			
Facility 1621	Pinehurst	NC	Solar	Intermediate	Yes	3.86			
Facility 1622	Asheville	NC	Solar	Intermediate	Yes	3.94			
Facility 1623	Raleigh	NC	Solar	Intermediate	Yes	3.75			
Facility 1624	Zebulon	NC	Solar	Intermediate	Yes	11.338			
Facility 1625	Wilmington	NC	Solar	Intermediate	Yes	5.24			
Facility 1626	Fayetteville	NC	Solar	Intermediate	Yes	4.297			
Facility 1627	Holly Springs	NC	Solar	Intermediate	Yes	5.652			
Facility 1628	Pittsboro	NC	Solar	Intermediate	Yes	2.097			
Facility 1629	Kinston	NC	Solar	Intermediate	Yes	4998			
Facility 1630	Hookerton	NC	Solar	Intermediate	Yes	1999			
Facility 1631	Raleigh	NC	Solar	Intermediate	Yes	4.95			
Facility 1632	Fuquay Varina	NC	Solar	Intermediate	Yes	14.56			
Facility 1633	Pittsboro	NC	Solar	Intermediate	Yes	4.627			
Facility 1634	Warsaw	NC	Solar	Intermediate	Yes	5000			
Facility 1635	Cary	NC	Solar	Intermediate	Yes	4.418			
Facility 1636	Raleigh	NC	Solar	Intermediate	Yes	6.93			
Facility 1637	Rocky Mount	NC	Solar	Intermediate	Yes	3.747			
Facility 1638	Pittsboro	NC	Solar	Intermediate	Yes	5.084			
Facility 1639	Wilmington	NC	Solar	Intermediate	Yes	8.668			
Facility 1640	Raleigh	NC	Solar	Intermediate	Yes	6.045			
Facility 1641	Raleigh	NC	Solar	Intermediate	Yes	5.352			
Facility 1642	Chapel Hill	NC	Solar	Intermediate	Yes	4.898			
Facility 1643	Biltmore Lake	NC	Solar	Intermediate	Yes	5.848			
Facility 1644	Bailey	NC	Solar	Intermediate	Yes	5000			
Facility 1645	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 1646	Cary	NC	Solar	Intermediate	Yes	5.254			

on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 1647	Raleigh	NC	Solar	Intermediate	Yes	2.143		
Facility 1648	Raleigh	NC	Solar	Intermediate	Yes	28		
Facility 1649	Garner	NC	Solar	Intermediate	Yes	2.711		
Facility 1650	Morrisville	NC	Solar	Intermediate	Yes	1.62		
Facility 1651	Asheville	NC	Solar	Intermediate	Yes	3.8		
Facility 1652	Raleigh	NC	Solar	Intermediate	Yes	9.96		
Facility 1653	Raleigh	NC	Solar	Intermediate	Yes	3.49		
Facility 1654	Arden	NC	Solar	Intermediate	Yes	4.36		
Facility 1655	Cary	NC	Solar	Intermediate	Yes	2.14		
Facility 1656	Candler	NC	Solar	Intermediate	Yes	6.76		
Facility 1657	Wendell	NC	Solar	Intermediate	Yes	4.19		
Facility 1658	Holly Springs	NC	Solar	Intermediate	Yes	2.5		
Facility 1659	Chapel Hill	NC	Solar	Intermediate	Yes	3.82		
Facility 1660	Franklinville	NC	Hydroelectric	Baseload	Yes	550		
Facility 1661	Raleigh	NC	Solar	Intermediate	Yes	4		
Facility 1662	Raleigh	NC	Solar	Intermediate	Yes	2.4		
Facility 1663	Vass	NC	Solar	Intermediate	Yes	6.691		
Facility 1664	Parkton	NC	Hydroelectric	Baseload	Yes	800		
Facility 1665	Raleigh	NC	Solar	Intermediate	Yes	2.086		
Facility 1666	Raleigh	NC	Solar	Intermediate	Yes	3.858		
Facility 1667	Jackson Spring	NC	Solar	Intermediate	Yes	47000		
Facility 1668	LaGrange	NC	Solar	Intermediate	Yes	4998		
Facility 1669	Four Oaks	NC	Solar	Intermediate	Yes	5000		
Facility 1670	Beulaville	NC	Solar	Intermediate	Yes	5000		
Facility 1671	Cary	NC	Solar	Intermediate	Yes	5.567		
Facility 1672	Clayton	NC	Solar	Intermediate	Yes	3.78		
Facility 1673	Zebulon	NC	Solar	Intermediate	Yes	10.448		
Facility 1674	Apex	NC	Solar	Intermediate	Yes	5.4		
Facility 1675	Zebulon	NC	Solar	Intermediate	Yes	1.6		
Facility 1676	Raleigh	NC	Solar	Intermediate	Yes	3.444		
Facility 1677	Chapel Hill	NC	Solar	Intermediate	Yes	1		
Facility 1678	Asheville	NC	Solar	Intermediate	Yes	4.8		
Facility 1679	Wendell	NC	Solar	Intermediate	Yes	3.76		
Facility 1680	Cary	NC	Solar	Intermediate	Yes	2.4		
Facility 1681	Spruce Pine	NC	Solar	Intermediate	Yes	4.971		

Non-Utility Generati	on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1682	Fuquay Varina	NC	Solar	Intermediate	Yes	5.729			
Facility 1683	Castalia	NC	Solar	Intermediate	Yes	4.944			
Facility 1684	Ashville	NC	Solar	Intermediate	Yes	5.335			
Facility 1685	Morehead City	NC	Solar	Intermediate	Yes	2.4			
Facility 1686	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 1687	Lillington	NC	Solar	Intermediate	Yes	2.25			
Facility 1688	Wendell	NC	Solar	Intermediate	Yes	4.1			
Facility 1689	Asheville	NC	Solar	Intermediate	Yes	3.84			
Facility 1690	Pittsboro	NC	Solar	Intermediate	Yes	3.04			
Facility 1691	Cary	NC	Solar	Intermediate	Yes	2.52			
Facility 1692	Chapel Hill	NC	Solar	Intermediate	Yes	5.83			
Facility 1693	Willow Spring	NC	Solar	Intermediate	Yes	2.6			
Facility 1694	Raleigh	NC	Solar	Intermediate	Yes	2.23			
Facility 1695	Raleigh	NC	Solar	Intermediate	Yes	4.19			
Facility 1696	Siler City	NC	Solar	Intermediate	Yes	9.79			
Facility 1697	Raleigh	NC	Solar	Intermediate	Yes	2.5			
Facility 1698	Hope Mills	NC	Solar	Intermediate	Yes	2.3			
Facility 1699	Raleigh	NC	Solar	Intermediate	Yes	4.6			
Facility 1700	Laurinburg	NC	Solar	Intermediate	Yes	1999			
Facility 1701	Cary	NC	Solar	Intermediate	Yes	7.6			
Facility 1702	Cary	NC	Solar	Intermediate	Yes	6.58			
Facility 1703	Black Mountain	NC	Solar	Intermediate	Yes	2.9			
Facility 1704	Asheville	NC	Solar	Intermediate	Yes	2.9			
Facility 1705	Chapel Hill	NC	Solar	Intermediate	Yes	4.21			
Facility 1706	Waynesville	NC	Solar	Intermediate	Yes	2.848			
Facility 1707	Rougemont	NC	Solar	Intermediate	Yes	3			
Facility 1708	Canton	NC	Solar	Intermediate	Yes	2.718			
Facility 1709	Raleigh	NC	Solar	Intermediate	Yes	2.46			
Facility 1710	Asheville	NC	Solar	Intermediate	Yes	4.219			
Facility 1711	Boiling Spring Lakes	NC	Solar	Intermediate	Yes	2.4			
Facility 1712	Hampstead	NC	Solar	Intermediate	Yes	3			
Facility 1713	Raleigh	NC	Solar	Intermediate	Yes	3.394			
Facility 1714	Asheville	NC	Solar	Intermediate	Yes	4.525			
Facility 1715	Raleigh	NC	Solar	Intermediate	Yes	4.035			
Facility 1716	Knightdale	NC	Solar	Intermediate	Yes	6.36			

Ion-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1717	Asheville	NC	Solar	Intermediate	Yes	3.3			
Facility 1718	Grifton	NC	Solar	Intermediate	Yes	5000			
Facility 1719	Kinston	NC	Solar	Intermediate	Yes	4975			
Facility 1720	Montreat	NC	Solar	Intermediate	Yes	5.128			
Facility 1721	Pinehurst	NC	Solar	Intermediate	Yes	2.83			
Facility 1722	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 1723	Raleigh	NC	Solar	Intermediate	Yes	5.379			
Facility 1724	Asheville	NC	Solar	Intermediate	Yes	4.537			
Facility 1725	Clayton	NC	Solar	Intermediate	Yes	3.097			
Facility 1726	Black Mountain	NC	Solar	Intermediate	Yes	1.92			
Facility 1727	Asheville	NC	Solar	Intermediate	Yes	4.428			
Facility 1728	Chapel Hill	NC	Solar	Intermediate	Yes	4			
Facility 1729	Asheville	NC	Solar	Intermediate	Yes	2.3			
Facility 1730	Clayton	NC	Solar	Intermediate	Yes	4.025			
Facility 1731	Apex	NC	Solar	Intermediate	Yes	6			
Facility 1732	Fuquay-Varina	NC	Solar	Intermediate	Yes	3.373			
Facility 1733	Pittsboro	NC	Solar	Intermediate	Yes	4			
Facility 1734	Southport	NC	Solar	Intermediate	Yes	2.88			
Facility 1735	Raleigh	NC	Solar	Intermediate	Yes	5.32			
Facility 1736	Raleigh	NC	Solar	Intermediate	Yes	2.25			
Facility 1737	Raleigh	NC	Solar	Intermediate	Yes	4.28			
Facility 1738	Cary	NC	Solar	Intermediate	Yes	2.4			
Facility 1739	Oxford	NC	Solar	Intermediate	Yes	2.477			
Facility 1740	Wilmington	NC	Solar	Intermediate	Yes	5.199			
Facility 1741	Asheville	NC	Solar	Intermediate	Yes	3.84			
Facility 1742	Wrightsville Beach	NC	Solar	Intermediate	Yes	6.571			
Facility 1743	Raleigh	NC	Solar	Intermediate	Yes	4.028			
Facility 1744	Raleigh	NC	Solar	Intermediate	Yes	12.279			
Facility 1745	West End	NC	Solar	Intermediate	Yes	3.57			
Facility 1746	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 1747	Raleigh	NC	Solar	Intermediate	Yes	2.15			
Facility 1748	Pittsboro	NC	Solar	Intermediate	Yes	4.55			
Facility 1749	Pinehurst	NC	Solar	Intermediate	Yes	3.08			
Facility 1750	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1751	Cary	NC	Solar	Intermediate	Yes	3.96			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 1752	Wilmington	NC	Solar	Intermediate	Yes	2.46		
Facility 1753	Apex	NC	Solar	Intermediate	Yes	2.442		
Facility 1754	Vass	NC	Solar	Intermediate	Yes	5.456		
Facility 1755	Wilmington	NC	Solar	Intermediate	Yes	20.827		
Facility 1756	Wilmington	NC	Solar	Intermediate	Yes	7.044		
Facility 1757	Pittsboro	NC	Solar	Intermediate	Yes	10.118		
Facility 1758	Cary	NC	Solar	Intermediate	Yes	9.014		
Facility 1759	Biscoe	NC	Solar	Intermediate	Yes	4.158		
Facility 1760	Asheville	NC	Solar	Intermediate	Yes	13.069		
Facility 1761	Southern Pines	NC	Solar	Intermediate	Yes	9.821		
Facility 1762	Zebulon	NC	Solar	Intermediate	Yes	2.03		
Facility 1763	Clayton	NC	Solar	Intermediate	Yes	8.747		
Facility 1764	Weaverville	NC	Solar	Intermediate	Yes	3.517		
Facility 1765	Raleigh	NC	Solar	Intermediate	Yes	47.98		
Facility 1766	Raleigh	NC	Solar	Intermediate	Yes	59.975		
Facility 1767	Asheville	NC	Solar	Intermediate	Yes	5.1		
Facility 1768	Cary	NC	Solar	Intermediate	Yes	5.311		
Facility 1769	Raleigh	NC	Solar	Intermediate	Yes	6.413		
Facility 1770	Asheville	NC	Solar	Intermediate	Yes	0.8		
Facility 1771	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 1772	Pittsboro	NC	Solar	Intermediate	Yes	3.38		
Facility 1773	Pittsboro	NC	Solar	Intermediate	Yes	4.69		
Facility 1774	Weaverville	NC	Solar	Intermediate	Yes	3.24		
Facility 1775	Asheville	NC	Solar	Intermediate	Yes	5.087		
Facility 1776	Apex	NC	Solar	Intermediate	Yes	3.9		
Facility 1777	Fuquay Varina	NC	Solar	Intermediate	Yes	3.254		
Facility 1778	Roxboro	NC	Solar	Intermediate	Yes	11.49		
Facility 1779	Garner	NC	Solar	Intermediate	Yes	3.261		
Facility 1780	Weaverville	NC	Solar	Intermediate	Yes	7.5		
Facility 1781	Wilmington	NC	Solar	Intermediate	Yes	7.358		
Facility 1782	Pittsboro	NC	Solar	Intermediate	Yes	3.26		
Facility 1783	Leicester	NC	Solar	Intermediate	Yes	4.571		
Facility 1784	Raleigh	NC	Solar	Intermediate	Yes	2.3		
Facility 1785	Pittsboro	NC	Solar	Intermediate	Yes	2.8		
Facility 1786	Sanford	NC	Solar	Intermediate	Yes	5		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1787	Gerton	NC	Solar	Intermediate	Yes	2.5			
Facility 1788	Black Mountain	NC	Solar	Intermediate	Yes	3.93			
Facility 1789	Leland	NC	Solar	Intermediate	Yes	3.42			
Facility 1790	Cary	NC	Solar	Intermediate	Yes	6.78			
Facility 1791	Asheville	NC	Solar	Intermediate	Yes	10			
Facility 1792	Asheville	NC	Solar	Intermediate	Yes	21			
Facility 1793	Cary	NC	Solar	Intermediate	Yes	43			
Facility 1794	Pittsboro	NC	Solar	Intermediate	Yes	4.86			
Facility 1795	Raleigh	NC	Solar	Intermediate	Yes	7.587			
Facility 1796	West End	NC	Solar	Intermediate	Yes	8.989			
Facility 1797	Raleigh	NC	Solar	Intermediate	Yes	8.983			
Facility 1798	Beaufort	NC	Solar	Intermediate	Yes	3.043			
Facility 1799	Pittsboro	NC	Solar	Intermediate	Yes	1.609			
Facility 1800	Marshall	NC	Hydroelectric	Baseload	Yes	1000			
Facility 1801	Cary	NC	Solar	Intermediate	Yes	9			
Facility 1802	Kenly	NC	Solar	Intermediate	Yes	123			
Facility 1803	Cary	NC	Solar	Intermediate	Yes	4.21			
Facility 1804	Carthage	NC	Solar	Intermediate	Yes	4.501			
Facility 1805	Chapel Hill	NC	Solar	Intermediate	Yes	1.384			
Facility 1806	Cary	NC	Solar	Intermediate	Yes	5.67			
Facility 1807	Cary	NC	Solar	Intermediate	Yes	5.7			
Facility 1808	Wilmington	NC	Solar	Intermediate	Yes	4.348			
Facility 1809	Cary	NC	Solar	Intermediate	Yes	5.41			
Facility 1810	Garland	NC	Solar	Intermediate	Yes	4998			
Facility 1811	Raleigh	NC	Solar	Intermediate	Yes	2.711			
Facility 1812	Raleigh	NC	Solar	Intermediate	Yes	4.23			
Facility 1813	Raleigh	NC	Solar	Intermediate	Yes	5.37			
Facility 1814	Cameron	NC	Solar	Intermediate	Yes	4.7			
Facility 1815	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 1816	Asheville	NC	Solar	Intermediate	Yes	4.44			
Facility 1817	Raleigh	NC	Solar	Intermediate	Yes	4.45			
Facility 1818	Pittsboro	NC	Solar	Intermediate	Yes	1.632			
Facility 1819	Asheboro	NC	Solar	Intermediate	Yes	6.24			
Facility 1820	Pinehurst	NC	Solar	Intermediate	Yes	3.457			
Facility 1821	Willow Spring	NC	Solar	Intermediate	Yes	2			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 1822	Raleigh	NC	Solar	Intermediate	Yes	1.72		
Facility 1823	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 1824	Chapel Hill	NC	Solar	Intermediate	Yes	2.67		
Facility 1825	Pittsboro	NC	Solar	Intermediate	Yes	2.65		
Facility 1826	Cary	NC	Solar	Intermediate	Yes	2.89		
Facility 1827	Asheville	NC	Solar	Intermediate	Yes	4.4		
Facility 1828	Knightdale	NC	Solar	Intermediate	Yes	2.82		
Facility 1829	Cary	NC	Solar	Intermediate	Yes	1.5		
Facility 1830	Weaverville	NC	Solar	Intermediate	Yes	1		
Facility 1831	Carolina Beach	NC	Solar	Intermediate	Yes	5.7		
Facility 1832	Raleigh	NC	Solar	Intermediate	Yes	2.67		
Facility 1833	Siler City	NC	Solar	Intermediate	Yes	2.65		
Facility 1834	Hampstead	NC	Solar	Intermediate	Yes	5.73		
Facility 1835	Robbins	NC	Solar	Intermediate	Yes	2.82		
Facility 1836	Southern Pines	NC	Solar	Intermediate	Yes	4.34		
Facility 1837	Raleigh	NC	Solar	Intermediate	Yes	3.3		
Facility 1838	Smyrna	NC	Solar	Intermediate	Yes	2.19		
Facility 1839	Fletcher	NC	Solar	Intermediate	Yes	7.6		
Facility 1840	Asheville	NC	Solar	Intermediate	Yes	5.3		
Facility 1841	Raleigh	NC	Solar	Intermediate	Yes	1.8		
Facility 1842	Pittsboro	NC	Solar	Intermediate	Yes	5.76		
Facility 1843	Asheville	NC	Solar	Intermediate	Yes	4.128		
Facility 1844	Raleigh	NC	Solar	Intermediate	Yes	3		
Facility 1845	Asheville	NC	Solar	Intermediate	Yes	4.92		
Facility 1846	Angier	NC	Solar	Intermediate	Yes	7.5		
Facility 1847	Pittsboro	NC	Solar	Intermediate	Yes	7.62		
Facility 1848	Raleigh	NC	Solar	Intermediate	Yes	2.9		
Facility 1849	Raleigh	NC	Solar	Intermediate	Yes	4.56		
Facility 1850	Raleigh	NC	Solar	Intermediate	Yes	1.643		
Facility 1851	Apex	NC	Solar	Intermediate	Yes	5.96		
Facility 1852	Raleigh	NC	Solar	Intermediate	Yes	2.1		
Facility 1853	Fletcher	NC	Solar	Intermediate	Yes	20		
Facility 1854	Fuquay Varina	NC	Solar	Intermediate	Yes	5.59		
Facility 1855	Asheville	NC	Solar	Intermediate	Yes	4		
Facility 1856	Wilmington	NC	Solar	Intermediate	Yes	4.493		

lon-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1857	Raleigh	NC	Solar	Intermediate	Yes	8.599			
Facility 1858	Asheville	NC	Solar	Intermediate	Yes	8.35			
Facility 1859	Raleigh	NC	Solar	Intermediate	Yes	2.09			
Facility 1860	Raleigh	NC	Solar	Intermediate	Yes	9.58			
Facility 1861	Raleigh	NC	Solar	Intermediate	Yes	12			
Facility 1862	Chapel Hill	NC	Solar	Intermediate	Yes	4.31			
Facility 1863	Apex	NC	Solar	Intermediate	Yes	4			
Facility 1864	Henderson	NC	Solar	Intermediate	Yes	3000			
Facility 1865	Raleigh	NC	Solar	Intermediate	Yes	5.7			
Facility 1866	Chapel Hill	NC	Solar	Intermediate	Yes	6.57			
Facility 1867	Wilmington	NC	Solar	Intermediate	Yes	6.98			
Facility 1868	Siler City	NC	Solar	Intermediate	Yes	3.261			
Facility 1869	Jacksonville	NC	Solar	Intermediate	Yes	4			
Facility 1870	Atlantic	NC	Solar	Intermediate	Yes	4.568			
Facility 1871	Asheville	NC	Solar	Intermediate	Yes	7.1			
Facility 1872	Clayton	NC	Solar	Intermediate	Yes	5.28			
Facility 1873	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 1874	Wilmington	NC	Solar	Intermediate	Yes	2.59			
Facility 1875	Wilmington	NC	Solar	Intermediate	Yes	3.3			
Facility 1876	Asheville	NC	Solar	Intermediate	Yes	4.68			
Facility 1877	Asheville	NC	Solar	Intermediate	Yes	2.24			
Facility 1878	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 1879	Raleigh	NC	Solar	Intermediate	Yes	3.08			
Facility 1880	Hot Springs	NC	Solar	Intermediate	Yes	6			
Facility 1881	Weaverville	NC	Solar	Intermediate	Yes	6			
Facility 1882	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 1883	Raleigh	NC	Solar	Intermediate	Yes	3.44			
Facility 1884	Southern Pines	NC	Solar	Intermediate	Yes	3.8			
Facility 1885	Arden	NC	Solar	Intermediate	Yes	3.22			
Facility 1886	Raleigh	NC	Solar	Intermediate	Yes	4.51			
Facility 1887	Raleigh	NC	Solar	Intermediate	Yes	3.67			
Facility 1888	Oxford	NC	Solar	Intermediate	Yes	4.56			
Facility 1889	Raleigh	NC	Solar	Intermediate	Yes	4.76			
Facility 1890	Raleigh	NC	Solar	Intermediate	Yes	5.25			
Facility 1891	Leland	NC	Solar	Intermediate	Yes	5.62			

on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Utility's Resources	Capacity (AC kW)		
Facility 1892	Wendell	NC	Solar	Intermediate	Yes	11.266		
Facility 1893	Clayton	NC	Solar	Intermediate	Yes	3.5		
Facility 1894	Raleigh	NC	Solar	Intermediate	Yes	3.85		
Facility 1895	Raleigh	NC	Solar	Intermediate	Yes	4.5		
Facility 1896	Wilmington	NC	Solar	Intermediate	Yes	1.38		
Facility 1897	Raleigh	NC	Solar	Intermediate	Yes	3.74		
Facility 1898	Asheville	NC	Solar	Intermediate	Yes	3.8		
Facility 1899	Asheville	NC	Solar	Intermediate	Yes	3.714		
Facility 1900	Chapel Hill	NC	Solar	Intermediate	Yes	4.77		
Facility 1901	Whiteville	NC	Solar	Intermediate	Yes	5.305		
Facility 1902	Raleigh	NC	Solar	Intermediate	Yes	3.2		
Facility 1903	Cary	NC	Solar	Intermediate	Yes	3.66		
Facility 1904	Semora	NC	Solar	Intermediate	Yes	20		
Facility 1905	Asheville	NC	Solar	Intermediate	Yes	3		
Facility 1906	Wilmington	NC	Solar	Intermediate	Yes	3.4		
Facility 1907	Raleigh	NC	Solar	Intermediate	Yes	3.06		
Facility 1908	Maxton	NC	Solar	Intermediate	Yes	4998		
Facility 1909	Fletcher	NC	Solar	Intermediate	Yes	3.261		
Facility 1910	Hollister	NC	Solar	Intermediate	Yes	2.58		
Facility 1911	Asheville	NC	Solar	Intermediate	Yes	18.9		
Facility 1912	Asheville	NC	Solar	Intermediate	Yes	16.2		
Facility 1913	Rowland	NC	Solar	Intermediate	Yes	5000		
Facility 1914	Lumberton	NC	Solar	Intermediate	Yes	2.714		
Facility 1915	Weaverville	NC	Solar	Intermediate	Yes	4.827		
Facility 1916	Asheville	NC	Solar	Intermediate	Yes	6.063		
Facility 1917	Asheville	NC	Solar	Intermediate	Yes	0.993		
Facility 1918	Hurdle Mills	NC	Solar	Intermediate	Yes	5.141		
Facility 1919	Lumber Bridge	NC	Solar	Intermediate	Yes	4950		
Facility 1920	Leland	NC	Solar	Intermediate	Yes	7.586		
Facility 1921	Cary	NC	Solar	Intermediate	Yes	552		
Facility 1922	Carthage	NC	Solar	Intermediate	Yes	4.501		
Facility 1923	Zebulon	NC	Solar	Intermediate	Yes	6.942		
Facility 1924	Whiteville	NC	Solar	Intermediate	Yes	4950		
Facility 1925	Raleigh	NC	Solar	Intermediate	Yes	2.59		
Facility 1926	Wake Forest	NC	Solar	Intermediate	Yes	0.295		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1927	Dunn	NC	Solar	Intermediate	Yes	4998			
Facility 1928	Bahama	NC	Solar	Intermediate	Yes	3.795			
Facility 1929	Kenly	NC	Solar	Intermediate	Yes	75			
Facility 1930	Cary	NC	Solar	Intermediate	Yes	3.254			
Facility 1931	Raleigh	NC	Solar	Intermediate	Yes	3.62			
Facility 1932	Chapel Hill	NC	Solar	Intermediate	Yes	4.52			
Facility 1933	Fuquay Varina	NC	Solar	Intermediate	Yes	2.1			
Facility 1934	Henderson	NC	Solar	Intermediate	Yes	5000			
Facility 1935	Alexander	NC	Solar	Intermediate	Yes	1.53			
Facility 1936	Hampstead	NC	Solar	Intermediate	Yes	7.89			
Facility 1937	Cary	NC	Solar	Intermediate	Yes	34.2			
Facility 1938	Raleigh	NC	Solar	Intermediate	Yes	1.898			
Facility 1939	Leicester	NC	Solar	Intermediate	Yes	4.89			
Facility 1940	Cary	NC	Solar	Intermediate	Yes	1.84			
Facility 1941	Morrisville	NC	Solar	Intermediate	Yes	1.288			
Facility 1942	Holly Springs	NC	Solar	Intermediate	Yes	1.6			
Facility 1943	Holly Springs	NC	Solar	Intermediate	Yes	1.8			
Facility 1944	Oxford	NC	Solar	Intermediate	Yes	5000			
Facility 1945	Morehead City	NC	Solar	Intermediate	Yes	3.44			
Facility 1946	Asheville	NC	Hydroelectric	Baseload	Yes	2500			
Facility 1947	Cary	NC	Solar	Intermediate	Yes	2.92			
Facility 1948	Hampstead	NC	Solar	Intermediate	Yes	2.58			
Facility 1949	Raleigh	NC	Solar	Intermediate	Yes	3.22			
Facility 1950	Hampstead	NC	Solar	Intermediate	Yes	4.77			
Facility 1951	Apex	NC	Solar	Intermediate	Yes	1.1			
Facility 1952	Weaverville	NC	Solar	Intermediate	Yes	3.75			
Facility 1953	Clayton	NC	Solar	Intermediate	Yes	5.886			
Facility 1954	Pinehurst	NC	Solar	Intermediate	Yes	4.82			
Facility 1955	Pittsboro	NC	Solar	Intermediate	Yes	5			
Facility 1956	Asheville	NC	Solar	Intermediate	Yes	4.2			
Facility 1957	Apex	NC	Solar	Intermediate	Yes	5.64			
Facility 1958	Asheville	NC	Solar	Intermediate	Yes	4.25			
Facility 1959	Cary	NC	Solar	Intermediate	Yes	3.78			
Facility 1960	Kure Beach	NC	Solar	Intermediate	Yes	2.44			
Facility 1961	Raleigh	NC	Solar	Intermediate	Yes	2			

Ion-Utility Generatio	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 1962	Pinehurst	NC	Solar	Intermediate	Yes	4.896			
Facility 1963	Raleigh	NC	Solar	Intermediate	Yes	6.21			
Facility 1964	Swannanoa	NC	Solar	Intermediate	Yes	4.24			
Facility 1965	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 1966	Raleigh	NC	Solar	Intermediate	Yes	3.44			
Facility 1967	Cary	NC	Solar	Intermediate	Yes	5.24			
Facility 1968	Zebulon	NC	Solar	Intermediate	Yes	7.5			
Facility 1969	Raeford	NC	Solar	Intermediate	Yes	3			
Facility 1970	Raleigh	NC	Solar	Intermediate	Yes	2.93			
Facility 1971	Pittsboro	NC	Solar	Intermediate	Yes	2.6			
Facility 1972	Pittsboro	NC	Solar	Intermediate	Yes	1.84			
Facility 1973	Clayton	NC	Solar	Intermediate	Yes	6.62			
Facility 1974	Sanford	NC	Solar	Intermediate	Yes	6.14			
Facility 1975	Cary	NC	Solar	Intermediate	Yes	3.75			
Facility 1976	Chapel Hill	NC	Solar	Intermediate	Yes	2.057			
Facility 1977	Raleigh	NC	Solar	Intermediate	Yes	5.2			
Facility 1978	Hampstead	NC	Solar	Intermediate	Yes	2.68			
Facility 1979	Fletcher	NC	Solar	Intermediate	Yes	3.8			
Facility 1980	Weaverville	NC	Solar	Intermediate	Yes	5.087			
Facility 1981	Pittsboro	NC	Solar	Intermediate	Yes	5.2			
Facility 1982	Fayetteville	NC	Solar	Intermediate	Yes	6.72			
Facility 1983	Asheville	NC	Solar	Intermediate	Yes	2.4			
Facility 1984	Raleigh	NC	Solar	Intermediate	Yes	3.67			
Facility 1985	Zebulon	NC	Solar	Intermediate	Yes	3			
Facility 1986	Middlesex	NC	Solar	Intermediate	Yes	2.17			
Facility 1987	Apex	NC	Solar	Intermediate	Yes	1.6			
Facility 1988	Asheville	NC	Solar	Intermediate	Yes	3.2			
Facility 1989	Pittsboro	NC	Solar	Intermediate	Yes	1.92			
Facility 1990	Rougemont	NC	Solar	Intermediate	Yes	5000			
Facility 1991	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 1992	Goldsboro	NC	Solar	Intermediate	Yes	3.581			
Facility 1993	Wilmington	NC	Solar	Intermediate	Yes	2.328			
Facility 1994	Holly Springs	NC	Solar	Intermediate	Yes	4.682			
Facility 1995	Asheville	NC	Solar	Intermediate	Yes	4.827			
Facility 1996	Lilesville	NC	Solar	Intermediate	Yes	5000			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 1997	Cary	NC	Solar	Intermediate	Yes	4.276		
Facility 1998	Raleigh	NC	Solar	Intermediate	Yes	9.01		
Facility 1999	Raleigh	NC	Solar	Intermediate	Yes	273		
Facility 2000	Pittsboro	NC	Solar	Intermediate	Yes	2.6		
Facility 2001	Holly Springs	NC	Solar	Intermediate	Yes	4.124		
Facility 2002	Raleigh	NC	Solar	Intermediate	Yes	2.503		
Facility 2003	Raleigh	NC	Solar	Intermediate	Yes	3.35		
Facility 2004	Raleigh	NC	Solar	Intermediate	Yes	3.35		
Facility 2005	Raleigh	NC	Solar	Intermediate	Yes	8.236		
Facility 2006	Raleigh	NC	Solar	Intermediate	Yes	2.922		
Facility 2007	Cary	NC	Solar	Intermediate	Yes	6.34		
Facility 2008	Moncure	NC	Solar	Intermediate	Yes	4975		
Facility 2009	Fairview	NC	Solar	Intermediate	Yes	3.436		
Facility 2010	Apex	NC	Solar	Intermediate	Yes	4.13		
Facility 2011	Chapel Hill	NC	Solar	Intermediate	Yes	4.62		
Facility 2012	Coats	NC	Solar	Intermediate	Yes	2.46		
Facility 2013	Wilmington	NC	Solar	Intermediate	Yes	3		
Facility 2014	Lillington	NC	Solar	Intermediate	Yes	2.88		
Facility 2015	Jacksonville	NC	Solar	Intermediate	Yes	5.69		
Facility 2016	Biscoe	NC	Solar	Intermediate	Yes	20000		
Facility 2017	Raleigh	NC	Solar	Intermediate	Yes	6.63		
Facility 2018	Asheville	NC	Solar	Intermediate	Yes	5.605		
Facility 2019	Rocky Mount	NC	Solar	Intermediate	Yes	6.394		
Facility 2020	Southern Pines	NC	Solar	Intermediate	Yes	8.184		
Facility 2021	LaGrange	NC	Solar	Intermediate	Yes	5000		
Facility 2022	La Grange	NC	Solar	Intermediate	Yes	4975		
Facility 2023	Louisburg	NC	Solar	Intermediate	Yes	5000		
Facility 2024	Chapel Hill	NC	Solar	Intermediate	Yes	5.03		
Facility 2025	Asheville	NC	Solar	Intermediate	Yes	5.353		
Facility 2026	Weaverville	NC	Solar	Intermediate	Yes	9.028		
Facility 2027	Wilmington	NC	Solar	Intermediate	Yes	4.92		
Facility 2028	Asheville	NC	Solar	Intermediate	Yes	16.461		
Facility 2029	Raleigh	NC	Solar	Intermediate	Yes	5		
Facility 2030	Mt Olive	NC	Solar	Intermediate	Yes	4998		
Facility 2031	Mt Olive	NC	Solar	Intermediate	Yes	1999		

on-Utility Generati	on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2032	Dudley	NC	Landfill Gas	Intermediate	Yes	3180			
Facility 2033	Asheville	NC	Solar	Intermediate	Yes	6.84			
Facility 2034	Garner	NC	Solar	Intermediate	Yes	4.25			
Facility 2035	Mt Olive	NC	Solar	Intermediate	Yes	4999			
Facility 2036	Mount Olive	NC	Solar	Intermediate	Yes	4975			
Facility 2037	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 2038	Liberty	NC	Solar	Intermediate	Yes	3.3			
Facility 2039	Black Mountain	NC	Solar	Intermediate	Yes	5.469			
Facility 2040	Clayton	NC	Solar	Intermediate	Yes	4000			
Facility 2041	Candler	NC	Solar	Intermediate	Yes	1.736			
Facility 2042	Hampstead	NC	Solar	Intermediate	Yes	4.75			
Facility 2043	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 2044	Cary	NC	Solar	Intermediate	Yes	5.899			
Facility 2045	Asheville	NC	Solar	Intermediate	Yes	2.5			
Facility 2046	Rockingham	NC	Solar	Intermediate	Yes	4.297			
Facility 2047	Raleigh	NC	Solar	Intermediate	Yes	4.743			
Facility 2048	Raleigh	NC	Solar	Intermediate	Yes	1.8			
Facility 2049	Clinton	NC	Wind	Intermediate	Yes	1.9			
Facility 2050	Raleigh	NC	Solar	Intermediate	Yes	1.8			
Facility 2051	Chapel Hill	NC	Solar	Intermediate	Yes	2.01			
Facility 2052	Carolina Beach	NC	Solar	Intermediate	Yes	6.91			
Facility 2053	Wilmington	NC	Solar	Intermediate	Yes	3.42			
Facility 2054	Rocky Point	NC	Solar	Intermediate	Yes	2.5			
Facility 2055	Black Mountain	NC	Solar	Intermediate	Yes	1.9			
Facility 2056	Nashville	NC	Solar	Intermediate	Yes	4950			
Facility 2057	Spring Hope	NC	Solar	Intermediate	Yes	4950			
Facility 2058	Middlesex	NC	Solar	Intermediate	Yes	4998			
Facility 2059	Middlesex	NC	Solar	Intermediate	Yes	4998			
Facility 2060	Nashville	NC	Solar	Intermediate	Yes	1980			
Facility 2061	Holly Springs	NC	Solar	Intermediate	Yes	7.83			
Facility 2062	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 2063	Siler City	NC	Solar	Intermediate	Yes	2.65			
Facility 2064	Zebulon	NC	Solar	Intermediate	Yes	3.44			
Facility 2065	Boiling Springs Lakes	NC	Solar	Intermediate	Yes	3.84			
Facility 2066	Oxford	NC	Solar	Intermediate	Yes	5.4			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2067	Asheville	NC	Solar	Intermediate	Yes	4.223			
Facility 2068	Cary	NC	Solar	Intermediate	Yes	6.38			
Facility 2069	Willow Spring	NC	Solar	Intermediate	Yes	9.128			
Facility 2070	Smyrna	NC	Solar	Intermediate	Yes	9.6			
Facility 2071	Smyrna	NC	Wind	Intermediate	Yes	10			
Facility 2072	Vass	NC	Solar	Intermediate	Yes	13			
Facility 2073	Raleigh	NC	Solar	Intermediate	Yes	4.8			
Facility 2074	Lumberton	NC	Biomass	Intermediate	Yes	36000			
Facility 2075	Raleigh	NC	Solar	Intermediate	Yes	5.4			
Facility 2076	Wilmington	NC	Solar	Intermediate	Yes	3.58			
Facility 2077	Pittsboro	NC	Solar	Intermediate	Yes	4.2			
Facility 2078	Knightdale	NC	Solar	Intermediate	Yes	6.15			
Facility 2079	Raleigh	NC	Solar	Intermediate	Yes	3.457			
Facility 2080	Raleigh	NC	Solar	Intermediate	Yes	1040			
Facility 2081	Ernul	NC	Solar	Intermediate	Yes	4975			
Facility 2082	Zebulon	NC	Solar	Intermediate	Yes	7.473			
Facility 2083	Raleigh	NC	Solar	Intermediate	Yes	5.95			
Facility 2084	Wilmington	NC	Solar	Intermediate	Yes	2.34			
Facility 2085	Pittsboro	NC	Solar	Intermediate	Yes	5			
Facility 2086	Raleigh	NC	Solar	Intermediate	Yes	3.906			
Facility 2087	NC	NC	Solar	Intermediate	Yes	1.806			
Facility 2088	Asheville	NC	Solar	Intermediate	Yes	1.815			
Facility 2089	Wilmington	NC	Solar	Intermediate	Yes	6.023			
Facility 2090	Wallace	NC	Solar	Intermediate	Yes	4998			
Facility 2091	Morrisville	NC	Solar	Intermediate	Yes	3.25			
Facility 2092	Wilmington	NC	Solar	Intermediate	Yes	3.7			
Facility 2093	Smithfield	NC	Solar	Intermediate	Yes	5000			
Facility 2094	Apex	NC	Solar	Intermediate	Yes	10.933			
Facility 2095	Asheville	NC	Solar	Intermediate	Yes	3.943			
Facility 2096	Asheville	NC	Solar	Intermediate	Yes	5.982			
Facility 2097	Asheville	NC	Solar	Intermediate	Yes	16.974			
Facility 2098	Timberlake	NC	Solar	Intermediate	Yes	3.028			
Facility 2099	Pinehurst	NC	Solar	Intermediate	Yes	4.58			
Facility 2100	Cary	NC	Solar	Intermediate	Yes	4.743			
Facility 2101	Wilmington	NC	Solar	Intermediate	Yes	5.53			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2102	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 2103	Raleigh	NC	Solar	Intermediate	Yes	3.4			
Facility 2104	Laurinburg	NC	Solar	Intermediate	Yes	2000			
Facility 2105	Laurinburg	NC	Solar	Intermediate	Yes	2000			
Facility 2106	Gibson	NC	Solar	Intermediate	Yes	5000			
Facility 2107	Castalia	NC	Solar	Intermediate	Yes	4998			
Facility 2108	Raleigh	NC	Solar	Intermediate	Yes	3.259			
Facility 2109	Wilmington	NC	Solar	Intermediate	Yes	46			
Facility 2110	Laurinburg	NC	Solar	Intermediate	Yes	4950			
Facility 2111	Asheville	NC	Solar	Intermediate	Yes	15.91			
Facility 2112	Raleigh	NC	Diesel	Peak	Yes	500			
Facility 2113	Leciester	NC	Solar	Intermediate	Yes	4.713			
Facility 2114	Alexander	NC	Solar	Intermediate	Yes	6.564			
Facility 2115	Clayton	NC	Solar	Intermediate	Yes	7.45			
Facility 2116	Spring Hope	NC	Hydroelectric	Baseload	Yes	350			
Facility 2117	Laurel Hill	NC	Solar	Intermediate	Yes	5000			
Facility 2118	Garner	NC	Solar	Intermediate	Yes	3.614			
Facility 2119	Raleigh	NC	Solar	Intermediate	Yes	3.918			
Facility 2120	Jacksonville	NC	Solar	Intermediate	Yes	4.6			
Facility 2121	Jacksonville	NC	Landfill Gas	Intermediate	Yes	1753			
Facility 2122	Chapel Hill	NC	Solar	Intermediate	Yes	7.424			
Facility 2123	Raleigh	NC	Solar	Intermediate	Yes	10.944			
Facility 2124	Candler	NC	Solar	Intermediate	Yes	9.931			
Facility 2125	Cary	NC	Solar	Intermediate	Yes	3.7			
Facility 2126	Angier	NC	Solar	Intermediate	Yes	5.866			
Facility 2127	Raleigh	NC	Solar	Intermediate	Yes	3.49			
Facility 2128	Swannanoa	NC	Solar	Intermediate	Yes	1.5			
Facility 2129	Asheville	NC	Solar	Intermediate	Yes	4			
Facility 2130	Cary	NC	Solar	Intermediate	Yes	7.8			
Facility 2131	Cary	NC	Solar	Intermediate	Yes	1.72			
Facility 2132	Wilmington	NC	Solar	Intermediate	Yes	3.5			
Facility 2133	Pinehurst	NC	Solar	Intermediate	Yes	3.14			
Facility 2134	Wilmington	NC	Solar	Intermediate	Yes	8.21			
Facility 2135	Clayton	NC	Solar	Intermediate	Yes	2.74			
Facility 2136	Asheville	NC	Solar	Intermediate	Yes	2.8			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2137	Cary	NC	Solar	Intermediate	Yes	4.46		
Facility 2138	Asheville	NC	Solar	Intermediate	Yes	4.571		
Facility 2139	Raleigh	NC	Solar	Intermediate	Yes	5.547		
Facility 2140	Southern Pines	NC	Solar	Intermediate	Yes	2.777		
Facility 2141	Pittsboro	NC	Solar	Intermediate	Yes	7.136		
Facility 2142	Raleigh	NC	Solar	Intermediate	Yes	6.27		
Facility 2143	Weaverville	NC	Solar	Intermediate	Yes	4.94		
Facility 2144	Weaverville	NC	Solar	Intermediate	Yes	2.9		
Facility 2145	Red Springs	NC	Solar	Intermediate	Yes	4950		
Facility 2146	Morrisville	NC	Solar	Intermediate	Yes	2.442		
Facility 2147	Pittsboro	NC	Solar	Intermediate	Yes	2.72		
Facility 2148	Candler	NC	Solar	Intermediate	Yes	4		
Facility 2149	Henderson	NC	Solar	Intermediate	Yes	3.68		
Facility 2150	New Bern	NC	Solar	Intermediate	Yes	6.66		
Facility 2151	Arden	NC	Solar	Intermediate	Yes	4.47		
Facility 2152	Pinehurst	NC	Solar	Intermediate	Yes	3.8		
Facility 2153	Cary	NC	Solar	Intermediate	Yes	5.39		
Facility 2154	Carthage	NC	Solar	Intermediate	Yes	5.71		
Facility 2155	Asheville	NC	Solar	Intermediate	Yes	3.01		
Facility 2156	Waynesville	NC	Solar	Intermediate	Yes	3.031		
Facility 2157	Raleigh	NC	Solar	Intermediate	Yes	2.496		
Facility 2158	Raleigh	NC	Solar	Intermediate	Yes	3		
Facility 2159	Barnardsville	NC	Solar	Intermediate	Yes	4.6		
Facility 2160	Asheville	NC	Solar	Intermediate	Yes	1.42		
Facility 2161	Garner	NC	Solar	Intermediate	Yes	7.33		
Facility 2162	Asheville	NC	Solar	Intermediate	Yes	3.14		
Facility 2163	Raleigh	NC	Solar	Intermediate	Yes	4.41		
Facility 2164	Raleigh	NC	Solar	Intermediate	Yes	1.92		
Facility 2165	Four Oaks	NC	Solar	Intermediate	Yes	2.58		
Facility 2166	Pinehurst	NC	Solar	Intermediate	Yes	5.04		
Facility 2167	Wilmington	NC	Solar	Intermediate	Yes	6.04		
Facility 2168	Zebulon	NC	Solar	Intermediate	Yes	1.14		
Facility 2169	Weaverville	NC	Solar	Intermediate	Yes	4.08		
Facility 2170	Louisburg	NC	Solar	Intermediate	Yes	9.06		
Facility 2171	Raleigh	NC	Solar	Intermediate	Yes	4.84		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2172	Cary	NC	Solar	Intermediate	Yes	4.29			
Facility 2173	Pittsboro	NC	Solar	Intermediate	Yes	1.49			
Facility 2174	Pittsboro	NC	Solar	Intermediate	Yes	1.85			
Facility 2175	Asheville	NC	Solar	Intermediate	Yes	4.84			
Facility 2176	Asheville	NC	Solar	Intermediate	Yes	1			
Facility 2177	Fairview	NC	Solar	Intermediate	Yes	5			
Facility 2178	Candler	NC	Solar	Intermediate	Yes	5.34			
Facility 2179	Wendell	NC	Solar	Intermediate	Yes	2.98			
Facility 2180	Wendell	NC	Solar	Intermediate	Yes	2.98			
Facility 2181	Fletcher	NC	Solar	Intermediate	Yes	7			
Facility 2182	Raleigh	NC	Solar	Intermediate	Yes	2.6			
Facility 2183	Timberlake	NC	Solar	Intermediate	Yes	1000			
Facility 2184	Aurora	NC	Other	Intermediate	Yes	10000			
Facility 2185	Timberlake	NC	Solar	Intermediate	Yes	2400			
Facility 2186	Raleigh	NC	Solar	Intermediate	Yes	5.021			
Facility 2187	Bear Creek	NC	Solar	Intermediate	Yes	2.45			
Facility 2188	Raleigh	NC	Solar	Intermediate	Yes	4.271			
Facility 2189	Roxboro	NC	Solar	Intermediate	Yes	5.707			
Facility 2190	Raleigh	NC	Solar	Intermediate	Yes	8.03			
Facility 2191	Beaufort	NC	Solar	Intermediate	Yes	2.064			
Facility 2192	Roxboro	NC	Solar	Intermediate	Yes	1998			
Facility 2193	Angier	NC	Solar	Intermediate	Yes	11.336			
Facility 2194	Pittsboro	NC	Solar	Intermediate	Yes	11			
Facility 2195	Wilmington	NC	Solar	Intermediate	Yes	2.45			
Facility 2196	Asheville	NC	Solar	Intermediate	Yes	3.75			
Facility 2197	Fuquay Varina	NC	Solar	Intermediate	Yes	12.113			
Facility 2198	Chocowinity	NC	Solar	Intermediate	Yes	6.414			
Facility 2199	Raleigh	NC	Solar	Intermediate	Yes	4.3			
Facility 2200	Alexander	NC	Solar	Intermediate	Yes	3.4			
Facility 2201	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 2202	Asheville	NC	Solar	Intermediate	Yes	1.68			
Facility 2203	Wilmington	NC	Solar	Intermediate	Yes	3.74			
Facility 2204	Raleigh	NC	Solar	Intermediate	Yes	3.05			
Facility 2205	Asheville	NC	Solar	Intermediate	Yes	4.65			
Facility 2206	Pittsboro	NC	Solar	Intermediate	Yes	6			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2207	Asheville	NC	Solar	Intermediate	Yes	0.995		
Facility 2208	Wilmington	NC	Solar	Intermediate	Yes	2.56		
Facility 2209	Morrisville	NC	Solar	Intermediate	Yes	6.38		
Facility 2210	Angier	NC	Solar	Intermediate	Yes	3.44		
Facility 2211	Asheville	NC	Solar	Intermediate	Yes	3		
Facility 2212	Sanford	NC	Other	Intermediate	Yes	250		
Facility 2213	Asheville	NC	Solar	Intermediate	Yes	3.32		
Facility 2214	Raleigh	NC	Solar	Intermediate	Yes	4		
Facility 2215	Pittsboro	NC	Solar	Intermediate	Yes	2.48		
Facility 2216	Pittsboro	NC	Solar	Intermediate	Yes	2.48		
Facility 2217	Pittsboro	NC	Solar	Intermediate	Yes	4.26		
Facility 2218	Raleigh	NC	Solar	Intermediate	Yes	4.05		
Facility 2219	Raleigh	NC	Solar	Intermediate	Yes	8.64		
Facility 2220	Asheville	NC	Solar	Intermediate	Yes	0.77		
Facility 2221	Pittsboro	NC	Solar	Intermediate	Yes	5.71		
Facility 2222	Black Mountain	NC	Solar	Intermediate	Yes	5.29		
Facility 2223	Asheboro	NC	Solar	Intermediate	Yes	6.88		
Facility 2224	Stedman	NC	Solar	Intermediate	Yes	2.795		
Facility 2225	Cary	NC	Solar	Intermediate	Yes	64		
Facility 2226	Cary	NC	Solar	Intermediate	Yes	64		
Facility 2227	Pinehurst	NC	Solar	Intermediate	Yes	142.56		
Facility 2228	Nashville	NC	Solar	Intermediate	Yes	4.573		
Facility 2229	Black Mountain	NC	Solar	Intermediate	Yes	4.063		
Facility 2230	Bynum	NC	Hydroelectric	Baseload	Yes	500		
Facility 2231	Candler	NC	Solar	Intermediate	Yes	4.039		
Facility 2232	Wagram	NC	Solar	Intermediate	Yes	15.36		
Facility 2233	Leicester	NC	Solar	Intermediate	Yes	3.153		
Facility 2234	Wilmington	NC	Solar	Intermediate	Yes	7.303		
Facility 2235	Pittsboro	NC	Solar	Intermediate	Yes	6.074		
Facility 2236	Pollocksville	NC	Solar	Intermediate	Yes	5000		
Facility 2237	Black Mountain	NC	Solar	Intermediate	Yes	2.03		
Facility 2238	Clinton	NC	Solar	Intermediate	Yes	5.853		
Facility 2239	Ernul	NC	Solar	Intermediate	Yes	4999		
Facility 2240	Pikeville	NC	Solar	Intermediate	Yes	5.986		
Facility 2241	Cary	NC	Solar	Intermediate	Yes	5.439		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2242	Wilmington	NC	Solar	Intermediate	Yes	5.407			
Facility 2243	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 2244	Morrisville	NC	Solar	Intermediate	Yes	2.77			
Facility 2245	Raleigh	NC	Solar	Intermediate	Yes	3.78			
Facility 2246	Pikeville	NC	Solar	Intermediate	Yes	4.076			
Facility 2247	Cary	NC	Solar	Intermediate	Yes	3.71			
Facility 2248	Raleigh	NC	Solar	Intermediate	Yes	13.476			
Facility 2249	Clinton	NC	Biomass	Intermediate	Yes	1610			
Facility 2250	Clinton	NC	Biomass	Intermediate	Yes	150			
Facility 2251	Biltmore Lake	NC	Solar	Intermediate	Yes	4.245			
Facility 2252	Raleigh	NC	Solar	Intermediate	Yes	7.387			
Facility 2253	Staley	NC	Solar	Intermediate	Yes	5.38			
Facility 2254	Raleigh	NC	Solar	Intermediate	Yes	28			
Facility 2255	Asheville	NC	Solar	Intermediate	Yes	4.605			
Facility 2256	Sanford	NC	Diesel	Peak	Yes	1562			
Facility 2257	Bunn	NC	Solar	Intermediate	Yes	4000			
Facility 2258	Fairmont	NC	Solar	Intermediate	Yes	3500			
Facility 2259	Maxton	NC	Solar	Intermediate	Yes	3600			
Facility 2260	Red Springs	NC	Solar	Intermediate	Yes	5.593			
Facility 2261	Wilmington	NC	Solar	Intermediate	Yes	383			
Facility 2262	Fayetteville	NC	Solar	Intermediate	Yes	4000			
Facility 2263	Asheville	NC	Solar	Intermediate	Yes	45			
Facility 2264	Asheville	NC	Solar	Intermediate	Yes	3			
Facility 2265	Asheville	NC	Solar	Intermediate	Yes	7.119			
Facility 2266	Raleigh	NC	Solar	Intermediate	Yes	8.084			
Facility 2267	Raeford	NC	Solar	Intermediate	Yes	4975			
Facility 2268	Cary	NC	Solar	Intermediate	Yes	4.132			
Facility 2269	St Pauls	NC	Solar	Intermediate	Yes	4998			
Facility 2270	St Pauls	NC	Solar	Intermediate	Yes	4975			
Facility 2271	Pembroke	NC	Solar	Intermediate	Yes	4000			
Facility 2272	Black Mountain	NC	Solar	Intermediate	Yes	4.131			
Facility 2273	Cary	NC	Solar	Intermediate	Yes	2			
Facility 2274	Wilmington	NC	Wind	Intermediate	Yes	4.2			
Facility 2275	Chapel Hill	NC	Solar	Intermediate	Yes	3.2			
Facility 2276	Pittsboro	NC	Solar	Intermediate	Yes	3.73			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2277	Fuquay Varina	NC	Solar	Intermediate	Yes	4.58		
Facility 2278	Asheville	NC	Solar	Intermediate	Yes	3.12		
Facility 2279	Pittsboro	NC	Solar	Intermediate	Yes	6.93		
Facility 2280	Morrisville	NC	Solar	Intermediate	Yes	5.24		
Facility 2281	Willow Spring	NC	Solar	Intermediate	Yes	5.51		
Facility 2282	Pittsboro	NC	Solar	Intermediate	Yes	4.205		
Facility 2283	Willow Spring	NC	Solar	Intermediate	Yes	0.96		
Facility 2284	Princeton	NC	Solar	Intermediate	Yes	6.91		
Facility 2286	Asheville	NC	Solar	Intermediate	Yes	3.33		
Facility 2287	Pittsboro	NC	Solar	Intermediate	Yes	3.17		
Facility 2288	Cary	NC	Solar	Intermediate	Yes	4.914		
Facility 2289	Wilmington	NC	Solar	Intermediate	Yes	6.899		
Facility 2290	Barnardsville	NC	Solar	Intermediate	Yes	2.651		
Facility 2291	Barnardsville	NC	Solar	Intermediate	Yes	8.351		
Facility 2292	Cary	NC	Solar	Intermediate	Yes	4.58		
Facility 2293	Raleigh	NC	Solar	Intermediate	Yes	1.6		
Facility 2294	Louisburg	NC	Solar	Intermediate	Yes	7.6		
Facility 2295	Lillington	NC	Solar	Intermediate	Yes	2.58		
Facility 2296	Wilmington	NC	Solar	Intermediate	Yes	3.209		
Facility 2297	Wake Forest	NC	Solar	Intermediate	Yes	5.598		
Facility 2298	Asheville	NC	Solar	Intermediate	Yes	5.111		
Facility 2299	Asheville	NC	Solar	Intermediate	Yes	2.38		
Facility 2300	Knightdale	NC	Solar	Intermediate	Yes	2		
Facility 2301	Linden	NC	Solar	Intermediate	Yes	4.2		
Facility 2302	Asheville	NC	Solar	Intermediate	Yes	3.64		
Facility 2303	Wrightsville Beach	NC	Solar	Intermediate	Yes	4.05		
Facility 2304	Raleigh	NC	Solar	Intermediate	Yes	5		
Facility 2305	Apex	NC	Solar	Intermediate	Yes	3.696		
Facility 2306	Raleigh	NC	Solar	Intermediate	Yes	3.84		
Facility 2307	Raleigh	NC	Solar	Intermediate	Yes	3.67		
Facility 2308	Warrenton	NC	Solar	Intermediate	Yes	4990		
Facility 2309	Nashville	NC	Solar	Intermediate	Yes	4800		
Facility 2310	Clayton	NC	Solar	Intermediate	Yes	1999		
Facility 2311	Fuquay Varina	NC	Solar	Intermediate	Yes	410		
Facility 2312	Asheville	NC	Solar	Intermediate	Yes	2.793		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2313	Asheville	NC	Solar	Intermediate	Yes	4.571			
Facility 2314	Chapel Hill	NC	Solar	Intermediate	Yes	2.383			
Facility 2315	Asheboro	NC	Solar	Intermediate	Yes	2			
Facility 2316	Weaverville	NC	Solar	Intermediate	Yes	5.339			
Facility 2317	Cary	NC	Solar	Intermediate	Yes	3.74			
Facility 2318	Cary	NC	Solar	Intermediate	Yes	192.5			
Facility 2319	Raleigh	NC	Solar	Intermediate	Yes	16.372			
Facility 2320	Star	NC	Solar	Intermediate	Yes	6.522			
Facility 2321	Weaverville	NC	Solar	Intermediate	Yes	3.041			
Facility 2322	Vass	NC	Solar	Intermediate	Yes	8.58			
Facility 2323	Wilmington	NC	Solar	Intermediate	Yes	5.26			
Facility 2324	Clayton	NC	Solar	Intermediate	Yes	5.399			
Facility 2325	Rocky Point	NC	Solar	Intermediate	Yes	2.67			
Facility 2326	Raleigh	NC	Solar	Intermediate	Yes	3.04			
Facility 2327	Asheville	NC	Solar	Intermediate	Yes	2.25			
Facility 2328	Wilmington	NC	Solar	Intermediate	Yes	4.31			
Facility 2329	Willow Spring	NC	Solar	Intermediate	Yes	5.47			
Facility 2330	Cary	NC	Solar	Intermediate	Yes	4			
Facility 2331	Cary	NC	Solar	Intermediate	Yes	2.37			
Facility 2332	Raleigh	NC	Solar	Intermediate	Yes	2.58			
Facility 2333	Pittsboro	NC	Solar	Intermediate	Yes	4			
Facility 2334	Fayetteville	NC	Solar	Intermediate	Yes	2.58			
Facility 2335	Black Mountain	NC	Solar	Intermediate	Yes	3.72			
Facility 2336	Raleigh	NC	Solar	Intermediate	Yes	4.21			
Facility 2337	Wendell	NC	Solar	Intermediate	Yes	1.9			
Facility 2338	Wilmington	NC	Solar	Intermediate	Yes	2.5			
Facility 2339	Asheville	NC	Solar	Intermediate	Yes	5.805			
Facility 2340	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 2341	Asheville	NC	Solar	Intermediate	Yes	4.76			
Facility 2342	Chapel Hill	NC	Solar	Intermediate	Yes	6.79			
Facility 2343	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 2344	Cary	NC	Solar	Intermediate	Yes	17.5			
Facility 2345	Chapel Hill	NC	Solar	Intermediate	Yes	7			
Facility 2346	Bayboro	NC	Solar	Intermediate	Yes	9.99			
Facility 2347	Wilmington	NC	Solar	Intermediate	Yes	8.773			

Ion-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2348	Chapel Hill	NC	Solar	Intermediate	Yes	4.998			
Facility 2349	Roxboro	NC	Solar	Intermediate	Yes	5.422			
Facility 2350	Pittsboro	NC	Solar	Intermediate	Yes	3.504			
Facility 2351	Barnardsville	NC	Solar	Intermediate	Yes	2.715			
Facility 2352	Clayton	NC	Solar	Intermediate	Yes	8.261			
Facility 2353	Wilmington	NC	Solar	Intermediate	Yes	2.4			
Facility 2354	Weaverville	NC	Solar	Intermediate	Yes	10.08			
Facility 2355	Fairview	NC	Solar	Intermediate	Yes	3.44			
Facility 2356	Apex	NC	Solar	Intermediate	Yes	6.323			
Facility 2357	Laurinburg	NC	Solar	Intermediate	Yes	2.946			
Facility 2358	Asheville	NC	Solar	Intermediate	Yes	3.8			
Facility 2359	Asheville	NC	Solar	Intermediate	Yes	5			
Facility 2360	Carolina Beach	NC	Solar	Intermediate	Yes	3			
Facility 2361	Fletcher	NC	Solar	Intermediate	Yes	11			
Facility 2362	Raleigh	NC	Solar	Intermediate	Yes	4.92			
Facility 2363	Apex	NC	Solar	Intermediate	Yes	6.55			
Facility 2364	Fletcher	NC	Solar	Intermediate	Yes	11			
Facility 2365	Asheville	NC	Solar	Intermediate	Yes	4.24			
Facility 2366	Barnardsville	NC	Solar	Intermediate	Yes	4.92			
Facility 2367	Selma	NC	Solar	Intermediate	Yes	4.31			
Facility 2368	Selma	NC	Solar	Intermediate	Yes	4			
Facility 2369	Pinehurst	NC	Solar	Intermediate	Yes	4.79			
Facility 2370	Asheville	NC	Solar	Intermediate	Yes	3.64			
Facility 2371	Morehead City	NC	Solar	Intermediate	Yes	2.22			
Facility 2372	Raleigh	NC	Solar	Intermediate	Yes	3			
Facility 2373	Swansboro	NC	Solar	Intermediate	Yes	2.45			
Facility 2374	Benson	NC	Solar	Intermediate	Yes	4			
Facility 2375	Benson	NC	Solar	Intermediate	Yes	4.6			
Facility 2376	Raleigh	NC	Solar	Intermediate	Yes	4.14			
Facility 2377	Raleigh	NC	Solar	Intermediate	Yes	4.14			
Facility 2378	Swansboro	NC	Solar	Intermediate	Yes	2.1			
Facility 2379	Leland	NC	Solar	Intermediate	Yes	3.6			
Facility 2380	Kure Beach	NC	Solar	Intermediate	Yes	2.1			
Facility 2381	Kure Beach	NC	Solar	Intermediate	Yes	2			
Facility 2382	Asheville	NC	Solar	Intermediate	Yes	3.98			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2383	Asheville	NC	Solar	Intermediate	Yes	4.32			
Facility 2384	Wilmington	NC	Solar	Intermediate	Yes	1.2			
Facility 2385	Wilmington	NC	Solar	Intermediate	Yes	6.28			
Facility 2386	Candler	NC	Solar	Intermediate	Yes	5.49			
Facility 2387	Asheville	NC	Solar	Intermediate	Yes	7			
Facility 2388	Pittsboro	NC	Solar	Intermediate	Yes	2.69			
Facility 2389	Candler	NC	Solar	Intermediate	Yes	7.6			
Facility 2390	Wilmington	NC	Solar	Intermediate	Yes	4.09			
Facility 2391	Wilmington	NC	Solar	Intermediate	Yes	2.52			
Facility 2392	Asheville	NC	Solar	Intermediate	Yes	3.92			
Facility 2393	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 2394	Wilmington	NC	Solar	Intermediate	Yes	3.93			
Facility 2395	Pinehurst	NC	Solar	Intermediate	Yes	3.76			
Facility 2396	Candler	NC	Solar	Intermediate	Yes	12			
Facility 2397	Semora	NC	Solar	Intermediate	Yes	5.32			
Facility 2398	Semora	NC	Solar	Intermediate	Yes	4.2			
Facility 2399	Wilmington	NC	Solar	Intermediate	Yes	3.81			
Facility 2400	Cary	NC	Solar	Intermediate	Yes	2.94			
Facility 2401	Raleigh	NC	Solar	Intermediate	Yes	3.6			
Facility 2402	Pinehurst	NC	Solar	Intermediate	Yes	2.58			
Facility 2403	Cary	NC	Solar	Intermediate	Yes	3.02			
Facility 2404	Weaverville	NC	Solar	Intermediate	Yes	7.2			
Facility 2405	Holly Springs	NC	Solar	Intermediate	Yes	1.8			
Facility 2406	Raleigh	NC	Solar	Intermediate	Yes	9.8			
Facility 2407	Wilmington	NC	Solar	Intermediate	Yes	9.9			
Facility 2408	Asheville	NC	Solar	Intermediate	Yes	3.33			
Facility 2409	Oxford	NC	Solar	Intermediate	Yes	4.15			
Facility 2410	Wilmington	NC	Solar	Intermediate	Yes	3.72			
Facility 2411	Hookerton	NC	Solar	Intermediate	Yes	5.06			
Facility 2412	Pittsboro	NC	Solar	Intermediate	Yes	1.57			
Facility 2413	Asheville	NC	Solar	Intermediate	Yes	5.29			
Facility 2414	Willow Spring	NC	Solar	Intermediate	Yes	4.54			
Facility 2415	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 2416	Marston	NC	Solar	Intermediate	Yes	4975			
Facility 2417	Marston	NC	Solar	Intermediate	Yes	4999			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2418	Rocky Mount	NC	Hydroelectric	Baseload	Yes	600			
Facility 2419	Sanford	NC	Hydroelectric	Baseload	Yes	235			
Facility 2420	Selma	NC	Solar	Intermediate	Yes	4.025			
Facility 2421	Franklinton	NC	Solar	Intermediate	Yes	3.6			
Facility 2422	Clayton	NC	Solar	Intermediate	Yes	3.47			
Facility 2423	Wilmington	NC	Solar	Intermediate	Yes	2			
Facility 2424	Leasburg	NC	Solar	Intermediate	Yes	4			
Facility 2425	Arden	NC	Solar	Intermediate	Yes	2.52			
Facility 2426	Carolina Beach	NC	Solar	Intermediate	Yes	2.324			
Facility 2427	Raleigh	NC	Solar	Intermediate	Yes	4.77			
Facility 2428	Kenansville	NC	Solar	Intermediate	Yes	3			
Facility 2429	Swannanoa	NC	Solar	Intermediate	Yes	18			
Facility 2430	Raleigh	NC	Solar	Intermediate	Yes	5.31			
Facility 2431	Leicester	NC	Solar	Intermediate	Yes	7.46			
Facility 2432	Raleigh	NC	Solar	Intermediate	Yes	10.641			
Facility 2433	Youngsville	NC	Solar	Intermediate	Yes	7.835			
Facility 2434	Raleigh	NC	Solar	Intermediate	Yes	2.18			
Facility 2435	Candler	NC	Solar	Intermediate	Yes	2.36			
Facility 2436	Fuquay Varina	NC	Solar	Intermediate	Yes	3.08			
Facility 2437	Wilmington	NC	Solar	Intermediate	Yes	4.8			
Facility 2438	Fletcher	NC	Solar	Intermediate	Yes	2.31			
Facility 2439	Wilmington	NC	Solar	Intermediate	Yes	7			
Facility 2440	Clayton	NC	Solar	Intermediate	Yes	2.5			
Facility 2441	Waynesville	NC	Solar	Intermediate	Yes	5			
Facility 2442	Raleigh	NC	Solar	Intermediate	Yes	4.9			
Facility 2443	Clayton	NC	Solar	Intermediate	Yes	2.58			
Facility 2444	Wilmington	NC	Solar	Intermediate	Yes	3.6			
Facility 2445	Wilmington	NC	Solar	Intermediate	Yes	2.6			
Facility 2446	Wilmington	NC	Solar	Intermediate	Yes	2.04			
Facility 2447	Black Mountain	NC	Solar	Intermediate	Yes	4.7			
Facility 2448	Wilmington	NC	Solar	Intermediate	Yes	3.43			
Facility 2449	Cary	NC	Solar	Intermediate	Yes	2.907			
Facility 2450	Wake Forest	NC	Solar	Intermediate	Yes	10			
Facility 2451	Rose Hill	NC	Solar	Intermediate	Yes	1900			
Facility 2452	Apex	NC	Solar	Intermediate	Yes	2.442			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2453	Princeton	NC	Solar	Intermediate	Yes	7.125			
Facility 2454	Chandler	NC	Solar	Intermediate	Yes	3.225			
Facility 2455	Pittsboro	NC	Solar	Intermediate	Yes	6.88			
Facility 2456	Biltmore Lake	NC	Solar	Intermediate	Yes	3.801			
Facility 2457	Wilmington	NC	Solar	Intermediate	Yes	2.88			
Facility 2458	Asheville	NC	Solar	Intermediate	Yes	4.571			
Facility 2459	Apex	NC	Solar	Intermediate	Yes	2.442			
Facility 2460	Zebulon	NC	Solar	Intermediate	Yes	8.726			
Facility 2461	Roxboro	NC	Solar	Intermediate	Yes	4975			
Facility 2462	Oxford	NC	Solar	Intermediate	Yes	5000			
Facility 2463	Fayetteville	NC	Solar	Intermediate	Yes	5.71			
Facility 2464	Apex	NC	Solar	Intermediate	Yes	3.1			
Facility 2465	Pittsboro	NC	Solar	Intermediate	Yes	2			
Facility 2466	Weaverville	NC	Solar	Intermediate	Yes	3.84			
Facility 2467	Godwin	NC	Solar	Intermediate	Yes	5000			
Facility 2468	Princeton	NC	Solar	Intermediate	Yes	5.565			
Facility 2469	Raleigh	NC	Solar	Intermediate	Yes	2.729			
Facility 2470	Candler	NC	Solar	Intermediate	Yes	5.255			
Facility 2471	Lillington	NC	Solar	Intermediate	Yes	5.588			
Facility 2472	Willow Spring	NC	Solar	Intermediate	Yes	4.63			
Facility 2473	Morrisville	NC	Solar	Intermediate	Yes	5.33			
Facility 2474	Arden	NC	Solar	Intermediate	Yes	6.2			
Facility 2475	Rougemont	NC	Solar	Intermediate	Yes	7.6			
Facility 2476	Pittsboro	NC	Solar	Intermediate	Yes	3.87			
Facility 2477	Leasburg	NC	Solar	Intermediate	Yes	8.47			
Facility 2478	Cary	NC	Solar	Intermediate	Yes	4			
Facility 2479	Raleigh	NC	Solar	Intermediate	Yes	4.52			
Facility 2480	Raleigh	NC	Solar	Intermediate	Yes	8.02			
Facility 2481	Raleigh	NC	Solar	Intermediate	Yes	4.52			
Facility 2482	Asheville	NC	Solar	Intermediate	Yes	5.651			
Facility 2483	Asheville	NC	Solar	Intermediate	Yes	7.542			
Facility 2484	Black Mountain	NC	Solar	Intermediate	Yes	4.8			
Facility 2485	Vass	NC	Solar	Intermediate	Yes	3.6			
Facility 2486	Southport	NC	Solar	Intermediate	Yes	1.5			
Facility 2487	Southport	NC	Solar	Intermediate	Yes	11.52			

Ion-Utility Generatio	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2488	Black Mtn	NC	Solar	Intermediate	Yes	20			
Facility 2489	Aberdeen	NC	Solar	Intermediate	Yes	3.87			
Facility 2490	Kure Beach	NC	Solar	Intermediate	Yes	6.468			
Facility 2491	Raleigh	NC	Solar	Intermediate	Yes	7.5			
Facility 2492	Cary	NC	Solar	Intermediate	Yes	5.6			
Facility 2493	Fuquay Varina	NC	Solar	Intermediate	Yes	4.38			
Facility 2494	Siler City	NC	Solar	Intermediate	Yes	2.34			
Facility 2495	Biscoe	NC	Solar	Intermediate	Yes	5000			
Facility 2496	Roseboro	NC	Solar	Intermediate	Yes	1980			
Facility 2497	Raleigh	NC	Solar	Intermediate	Yes	4.165			
Facility 2498	Asheville	NC	Solar	Intermediate	Yes	20			
Facility 2499	Raleigh	NC	Solar	Intermediate	Yes	3.78			
Facility 2500	Asheville	NC	Solar	Intermediate	Yes	3.3			
Facility 2501	Cary	NC	Solar	Intermediate	Yes	3.503			
Facility 2502	Asheville	NC	Solar	Intermediate	Yes	4.25			
Facility 2503	Raleigh	NC	Solar	Intermediate	Yes	4.16			
Facility 2504	Fletcher	NC	Solar	Intermediate	Yes	4.304			
Facility 2505	Asheville	NC	Solar	Intermediate	Yes	9.067			
Facility 2506	Asheboro	NC	Solar	Intermediate	Yes	3.676			
Facility 2507	Raleigh	NC	Solar	Intermediate	Yes	1.9			
Facility 2508	Cary	NC	Solar	Intermediate	Yes	5.8			
Facility 2509	Elm City	NC	Solar	Intermediate	Yes	1200			
Facility 2510	Cary	NC	Solar	Intermediate	Yes	3.57			
Facility 2511	Asheville	NC	Solar	Intermediate	Yes	5.16			
Facility 2512	Fairview	NC	Solar	Intermediate	Yes	5.85			
Facility 2513	Raleigh	NC	Solar	Intermediate	Yes	3.3			
Facility 2514	Asheville	NC	Solar	Intermediate	Yes	4.3			
Facility 2515	New Bern	NC	Solar	Intermediate	Yes	4.67			
Facility 2516	Raleigh	NC	Solar	Intermediate	Yes	2.75			
Facility 2517	Pittsboro	NC	Solar	Intermediate	Yes	2			
Facility 2518	Louisburg	NC	Solar	Intermediate	Yes	5000			
Facility 2519	Raleigh	NC	Solar	Intermediate	Yes	4.25			
Facility 2520	Cary	NC	Solar	Intermediate	Yes	4.585			
Facility 2521	Cary	NC	Solar	Intermediate	Yes	72			
Facility 2522	Cary	NC	Solar	Intermediate	Yes	960			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2523	Cary	NC	Solar	Intermediate	Yes	800			
Facility 2524	Pinebluff	NC	Solar	Intermediate	Yes	6.993			
Facility 2525	Cary	NC	Solar	Intermediate	Yes	2.442			
Facility 2526	Asheville	NC	Solar	Intermediate	Yes	3.209			
Facility 2527	Asheville	NC	Solar	Intermediate	Yes	4.05			
Facility 2528	Pittsboro	NC	Solar	Intermediate	Yes	9.471			
Facility 2529	Asheville	NC	Solar	Intermediate	Yes	10.412			
Facility 2530	Pikeville	NC	Solar	Intermediate	Yes	4.585			
Facility 2531	Garner	NC	Solar	Intermediate	Yes	6.864			
Facility 2532	Asheville	NC	Solar	Intermediate	Yes	8.224			
Facility 2533	Asheville	NC	Solar	Intermediate	Yes	2.635			
Facility 2534	Asheville	NC	Solar	Intermediate	Yes	2.876			
Facility 2535	Wilmington	NC	Solar	Intermediate	Yes	4.385			
Facility 2536	Wilmington	NC	Solar	Intermediate	Yes	6.531			
Facility 2537	Fletcher	NC	Solar	Intermediate	Yes	3.85			
Facility 2538	Pinehurst	NC	Solar	Intermediate	Yes	3.21			
Facility 2539	Asheville	NC	Solar	Intermediate	Yes	3.85			
Facility 2540	Asheville	NC	Solar	Intermediate	Yes	6			
Facility 2541	Laurinburg	NC	Solar	Intermediate	Yes	4.95			
Facility 2542	Carolina Beach	NC	Solar	Intermediate	Yes	2.19			
Facility 2543	Raleigh	NC	Solar	Intermediate	Yes	1.72			
Facility 2544	Raleigh	NC	Solar	Intermediate	Yes	8			
Facility 2545	Wilmington	NC	Solar	Intermediate	Yes	4.5			
Facility 2546	Cary	NC	Solar	Intermediate	Yes	5.68			
Facility 2547	Hurdle Mills	NC	Solar	Intermediate	Yes	20			
Facility 2548	Raleigh	NC	Solar	Intermediate	Yes	3.62			
Facility 2549	Asheville	NC	Solar	Intermediate	Yes	6.5			
Facility 2550	Louisburg	NC	Solar	Intermediate	Yes	7.68			
Facility 2551	Raleigh	NC	Solar	Intermediate	Yes	3.44			
Facility 2552	Vass	NC	Solar	Intermediate	Yes	4.8			
Facility 2553	Wilmington	NC	Solar	Intermediate	Yes	4.678			
Facility 2554	Raleigh	NC	Solar	Intermediate	Yes	3.164			
Facility 2555	Lakeview	NC	Solar	Intermediate	Yes	5000			
Facility 2556	Spring Lake	NC	Solar	Intermediate	Yes	3.9			
Facility 2557	Cary	NC	Solar	Intermediate	Yes	4.537			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2558	Selma	NC	Solar	Intermediate	Yes	5000		
Facility 2559	Goldsboro	NC	Solar	Intermediate	Yes	6.056		
Facility 2560	Franklinton	NC	Solar	Intermediate	Yes	2.3		
Facility 2561	Cary	NC	Solar	Intermediate	Yes	4		
Facility 2562	Apex	NC	Solar	Intermediate	Yes	3.77		
Facility 2563	Pittsboro	NC	Solar	Intermediate	Yes	1.43		
Facility 2564	Henderson	NC	Solar	Intermediate	Yes	3.557		
Facility 2565	Raleigh	NC	Solar	Intermediate	Yes	2.6		
Facility 2566	Raleigh	NC	Solar	Intermediate	Yes	1.63		
Facility 2567	Wilmington	NC	Solar	Intermediate	Yes	8.695		
Facility 2568	Cary	NC	Solar	Intermediate	Yes	3.43		
Facility 2569	Chapel Hill	NC	Solar	Intermediate	Yes	5		
Facility 2570	Shannon	NC	Solar	Intermediate	Yes	4975		
Facility 2571	Fuquay Varina	NC	Solar	Intermediate	Yes	4.576		
Facility 2572	Morrisville	NC	Solar	Intermediate	Yes	5.64		
Facility 2573	Raleigh	NC	Solar	Intermediate	Yes	2.9		
Facility 2574	Clayton	NC	Solar	Intermediate	Yes	2.4		
Facility 2575	Asheville	NC	Solar	Intermediate	Yes	2.43		
Facility 2576	Raleigh	NC	Solar	Intermediate	Yes	7.09		
Facility 2577	Asheville	NC	Solar	Intermediate	Yes	8.64		
Facility 2578	Fuquay-Varina	NC	Solar	Intermediate	Yes	4.495		
Facility 2579	Raleigh	NC	Solar	Intermediate	Yes	2		
Facility 2580	Wilmington	NC	Solar	Intermediate	Yes	2.946		
Facility 2581	Swannanoa	NC	Solar	Intermediate	Yes	8.149		
Facility 2582	Cary	NC	Solar	Intermediate	Yes	7.38		
Facility 2583	Alexander	NC	Solar	Intermediate	Yes	3.87		
Facility 2584	Chapel Hill	NC	Solar	Intermediate	Yes	5.83		
Facility 2585	Lillington	NC	Solar	Intermediate	Yes	3.06		
Facility 2586	Asheville	NC	Solar	Intermediate	Yes	4.9		
Facility 2587	Aberdeen	NC	Solar	Intermediate	Yes	5.96		
Facility 2588	Fairview	NC	Solar	Intermediate	Yes	2.49		
Facility 2589	Clayton	NC	Solar	Intermediate	Yes	2.24		
Facility 2590	Raleigh	NC	Solar	Intermediate	Yes	5.31		
Facility 2591	Apex	NC	Solar	Intermediate	Yes	38.8		
Facility 2592	Garner	NC	Solar	Intermediate	Yes	5.345		

Ion-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2593	Asheville	NC	Solar	Intermediate	Yes	4.277			
Facility 2594	Asheville	NC	Solar	Intermediate	Yes	3.212			
Facility 2595	Fletcher	NC	Solar	Intermediate	Yes	2.785			
Facility 2596	Cary	NC	Solar	Intermediate	Yes	3.98			
Facility 2597	Cary	NC	Solar	Intermediate	Yes	4.905			
Facility 2598	Willow Spring	NC	Solar	Intermediate	Yes	5.729			
Facility 2599	Raleigh	NC	Solar	Intermediate	Yes	6.163			
Facility 2600	Raleigh	NC	Solar	Intermediate	Yes	6.985			
Facility 2601	Siler City	NC	Solar	Intermediate	Yes	5000			
Facility 2602	Candler	NC	Solar	Intermediate	Yes	5			
Facility 2603	Southport	NC	Solar	Intermediate	Yes	3.043			
Facility 2604	Raleigh	NC	Solar	Intermediate	Yes	2.43			
Facility 2605	Wilmington	NC	Solar	Intermediate	Yes	5.938			
Facility 2606	Raeford	NC	Solar	Intermediate	Yes	7.594			
Facility 2607	Hope Mills	NC	Solar	Intermediate	Yes	5.38			
Facility 2608	Asheboro	NC	Solar	Intermediate	Yes	3.724			
Facility 2609	Asheville	NC	Solar	Intermediate	Yes	14.399			
Facility 2610	Spruce Pine	NC	Solar	Intermediate	Yes	2.314			
Facility 2611	Louisburg	NC	Solar	Intermediate	Yes	4.91			
Facility 2612	Garner	NC	Solar	Intermediate	Yes	5.446			
Facility 2613	Laurinburg	NC	Solar	Intermediate	Yes	11			
Facility 2614	Laurinburg	NC	Solar	Intermediate	Yes	10			
Facility 2615	Cary	NC	Solar	Intermediate	Yes	3.856			
Facility 2616	Fuquay Varina	NC	Solar	Intermediate	Yes	8.687			
Facility 2617	Holly Springs	NC	Solar	Intermediate	Yes	4.671			
Facility 2618	Pittsboro	NC	Solar	Intermediate	Yes	7.528			
Facility 2619	Snow Hill	NC	Solar	Intermediate	Yes	1990			
Facility 2620	Louisburg	NC	Solar	Intermediate	Yes	48			
Facility 2621	Mount Olive	NC	Solar	Intermediate	Yes	1980			
Facility 2622	Raleigh	NC	Solar	Intermediate	Yes	385			
Facility 2623	Newton Grove	NC	Solar	Intermediate	Yes	4872			
Facility 2624	Clarkton	NC	Solar	Intermediate	Yes	4950			
Facility 2625	Dunn	NC	Solar	Intermediate	Yes	5000			
Facility 2626	Goldsboro	NC	Solar	Intermediate	Yes	9.992			
Facility 2627	Asheville	NC	Solar	Intermediate	Yes	1.92			

on-Utility Generation	n (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2628	Goldsboro	NC	Solar	Intermediate	Yes	5000
Facility 2629	Youngsville	NC	Solar	Intermediate	Yes	5
Facility 2630	Chapel Hill	NC	Solar	Intermediate	Yes	2.442
Facility 2631	Clayton	NC	Solar	Intermediate	Yes	5.129
Facility 2632	Norlina	NC	Solar	Intermediate	Yes	3500
Facility 2633	Wilmington	NC	Solar	Intermediate	Yes	100
Facility 2634	Wilmington	NC	Solar	Intermediate	Yes	1600
Facility 2635	Louisburg	NC	Solar	Intermediate	Yes	5000
Facility 2636	Rowland	NC	Solar	Intermediate	Yes	4975
Facility 2637	Fletcher	NC	Solar	Intermediate	Yes	1000
Facility 2638	Henderson	NC	Solar	Intermediate	Yes	5000
Facility 2639	Pittsboro	NC	Solar	Intermediate	Yes	4.495
Facility 2640	Raleigh	NC	Solar	Intermediate	Yes	7.626
Facility 2641	Raleigh	NC	Solar	Intermediate	Yes	5.11
Facility 2642	Angier	NC	Solar	Intermediate	Yes	4.404
Facility 2643	Wilmington	NC	Solar	Intermediate	Yes	2.6
Facility 2644	Eagle Springs	NC	Solar	Intermediate	Yes	4950
Facility 2645	Raleigh	NC	Solar	Intermediate	Yes	6.913
Facility 2646	Henderson	NC	Solar	Intermediate	Yes	5000
Facility 2647	Clayton	NC	Solar	Intermediate	Yes	6.126
Facility 2648	Wendell	NC	Solar	Intermediate	Yes	5.769
Facility 2649	Cary	NC	Solar	Intermediate	Yes	4.57
Facility 2650	Cary	NC	Solar	Intermediate	Yes	4.42
Facility 2651	Cary	NC	Solar	Intermediate	Yes	3.8
Facility 2652	Asheville	NC	Solar	Intermediate	Yes	45
Facility 2653	St Pauls	NC	Solar	Intermediate	Yes	4998
Facility 2654	St Pauls	NC	Solar	Intermediate	Yes	4998
Facility 2655	Raleigh	NC	Solar	Intermediate	Yes	10.583
Facility 2656	Henderson	NC	Solar	Intermediate	Yes	4999
Facility 2657	Henderson	NC	Solar	Intermediate	Yes	5000
Facility 2658	Clayton	NC	Solar	Intermediate	Yes	6.056
Facility 2659	Raleigh	NC	Solar	Intermediate	Yes	2.377
Facility 2660	Asheville	NC	Solar	Intermediate	Yes	3.44
Facility 2661	Angier	NC	Solar	Intermediate	Yes	8.851
Facility 2662	Apex	NC	Solar	Intermediate	Yes	5.831

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2663	Pittsboro	NC	Solar	Intermediate	Yes	3.23		
Facility 2664	New Hill	NC	Solar	Intermediate	Yes	4.561		
Facility 2665	Morrisville	NC	Solar	Intermediate	Yes	3.494		
Facility 2666	Asheville	NC	Solar	Intermediate	Yes	8.433		
Facility 2667	Chapel Hill	NC	Solar	Intermediate	Yes	8.46		
Facility 2668	Raleigh	NC	Solar	Intermediate	Yes	3.5		
Facility 2669	Pinehurst	NC	Solar	Intermediate	Yes	4.36		
Facility 2670	Hampstead	NC	Solar	Intermediate	Yes	4.205		
Facility 2671	Raleigh	NC	Solar	Intermediate	Yes	7.275		
Facility 2672	Wilmington	NC	Solar	Intermediate	Yes	4.25		
Facility 2673	Raleigh	NC	Solar	Intermediate	Yes	5.5		
Facility 2674	Apex	NC	Solar	Intermediate	Yes	3.4		
Facility 2675	Southern Pines	NC	Solar	Intermediate	Yes	1.92		
Facility 2676	Cary	NC	Solar	Intermediate	Yes	5.67		
Facility 2677	Asheville	NC	Solar	Intermediate	Yes	5.25		
Facility 2678	Asheville	NC	Solar	Intermediate	Yes	3.84		
Facility 2679	Raleigh	NC	Solar	Intermediate	Yes	4.74		
Facility 2680	Pittsboro	NC	Solar	Intermediate	Yes	4.69		
Facility 2681	Asheville	NC	Solar	Intermediate	Yes	9.84		
Facility 2682	Asheville	NC	Solar	Intermediate	Yes	3.08		
Facility 2683	Seagrove	NC	Solar	Intermediate	Yes	4.682		
Facility 2684	Raleigh	NC	Solar	Intermediate	Yes	7.76		
Facility 2685	Apex	NC	Solar	Intermediate	Yes	3.11		
Facility 2686	Raleigh	NC	Solar	Intermediate	Yes	2.12		
Facility 2687	Wilmington	NC	Solar	Intermediate	Yes	3.5		
Facility 2688	Asheville	NC	Solar	Intermediate	Yes	4.04		
Facility 2689	Weaverville	NC	Solar	Intermediate	Yes	3.25		
Facility 2690	Barnardsville	NC	Solar	Intermediate	Yes	2.5		
Facility 2691	Raleigh	NC	Solar	Intermediate	Yes	4.46		
Facility 2692	Climax	NC	Solar	Intermediate	Yes	7.68		
Facility 2693	Pinehurst	NC	Solar	Intermediate	Yes	4.3		
Facility 2694	Asheville	NC	Solar	Intermediate	Yes	2.76		
Facility 2695	Weaverville	NC	Solar	Intermediate	Yes	3		
Facility 2696	Cary	NC	Solar	Intermediate	Yes	3.51		
Facility 2697	Willow Spring	NC	Solar	Intermediate	Yes	3.97		

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2698	Raleigh	NC	Solar	Intermediate	Yes	7.454			
Facility 2699	Cary	NC	Solar	Intermediate	Yes	3.79			
Facility 2700	Semora	NC	Solar	Intermediate	Yes	3.59			
Facility 2701	Whiteville	NC	Solar	Intermediate	Yes	12.764			
Facility 2702	Wilmington	NC	Solar	Intermediate	Yes	4.965			
Facility 2703	Angier	NC	Solar	Intermediate	Yes	5.031			
Facility 2704	Asheville	NC	Solar	Intermediate	Yes	7.6			
Facility 2705	Raleigh	NC	Solar	Intermediate	Yes	4.56			
Facility 2706	Black Mountain	NC	Solar	Intermediate	Yes	4.475			
Facility 2707	Weaverville	NC	Solar	Intermediate	Yes	6.001			
Facility 2708	Smyrna	NC	Solar	Intermediate	Yes	5000			
Facility 2709	Leicester	NC	Solar	Intermediate	Yes	5.084			
Facility 2710	Asheville	NC	Solar	Intermediate	Yes	4.9			
Facility 2711	Rocky Mount	NC	Solar	Intermediate	Yes	5.3			
Facility 2712	Rocky Mount	NC	Solar	Intermediate	Yes	4.74			
Facility 2713	Zebulon	NC	Solar	Intermediate	Yes	11.44			
Facility 2714	Durham	NC	Solar	Intermediate	Yes	5.626			
Facility 2715	Fletcher	NC	Solar	Intermediate	Yes	6.824			
Facility 2716	Cary	NC	Solar	Intermediate	Yes	8.7			
Facility 2717	Garner	NC	Solar	Intermediate	Yes	2.359			
Facility 2718	Raleigh	NC	Solar	Intermediate	Yes	7.342			
Facility 2719	Raleigh	NC	Solar	Intermediate	Yes	3.79			
Facility 2720	Cary	NC	Solar	Intermediate	Yes	2.87			
Facility 2721	Black Mountain	NC	Solar	Intermediate	Yes	3.261			
Facility 2722	Raleigh	NC	Solar	Intermediate	Yes	5.22			
Facility 2723	Asheville	NC	Solar	Intermediate	Yes	5.32			
Facility 2724	Black Mtn	NC	Solar	Intermediate	Yes	3.021			
Facility 2725	Chapel Hill	NC	Solar	Intermediate	Yes	2.329			
Facility 2726	Littleton	NC	Solar	Intermediate	Yes	5000			
Facility 2727	Henderson	NC	Solar	Intermediate	Yes	4990			
Facility 2728	Fair Bluff	NC	Solar	Intermediate	Yes	5000			
Facility 2729	Wilmington	NC	Solar	Intermediate	Yes	1000			
Facility 2730	Shannon	NC	Solar	Intermediate	Yes	5000			
Facility 2731	Weaverville	NC	Solar	Intermediate	Yes	193			
Facility 2732	Goldsboro	NC	Solar	Intermediate	Yes	2.58			

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2733	Willow Springs	NC	Solar	Intermediate	Yes	4950			
Facility 2734	Black Mountain	NC	Solar	Intermediate	Yes	40			
Facility 2735	Raleigh	NC	Solar	Intermediate	Yes	5.731			
Facility 2736	Raleigh	NC	Solar	Intermediate	Yes	3.7			
Facility 2737	Apex	NC	Solar	Intermediate	Yes	4.81			
Facility 2738	Roxboro	NC	Solar	Intermediate	Yes	3.8			
Facility 2739	Williston	NC	Solar	Intermediate	Yes	4			
Facility 2740	Cary	NC	Solar	Intermediate	Yes	2.91			
Facility 2741	Pinehurst	NC	Solar	Intermediate	Yes	4.43			
Facility 2742	Fletcher	NC	Solar	Intermediate	Yes	7.36			
Facility 2743	Pittsboro	NC	Solar	Intermediate	Yes	3.52			
Facility 2744	Fayetteville	NC	Solar	Intermediate	Yes	3.87			
Facility 2745	Wilmington	NC	Solar	Intermediate	Yes	3.31			
Facility 2746	Fletcher	NC	Solar	Intermediate	Yes	6.1			
Facility 2747	Asheville	NC	Solar	Intermediate	Yes	3.597			
Facility 2748	Raleigh	NC	Solar	Intermediate	Yes	4.23			
Facility 2749	Wilmington	NC	Solar	Intermediate	Yes	5.06			
Facility 2750	Candler	NC	Solar	Intermediate	Yes	3.01			
Facility 2751	Pittsboro	NC	Solar	Intermediate	Yes	2.08			
Facility 2752	Morrisville	NC	Solar	Intermediate	Yes	4.067			
Facility 2753	Micaville	NC	Solar	Intermediate	Yes	4.525			
Facility 2754	Asheville	NC	Solar	Intermediate	Yes	4.2			
Facility 2755	Hampstead	NC	Solar	Intermediate	Yes	3.38			
Facility 2756	Castle Hayne	NC	Solar	Intermediate	Yes	5.4			
Facility 2757	Raleigh	NC	Solar	Intermediate	Yes	2.07			
Facility 2758	Cary	NC	Solar	Intermediate	Yes	4.68			
Facility 2759	Asheville	NC	Solar	Intermediate	Yes	2.376			
Facility 2760	Raleigh	NC	Solar	Intermediate	Yes	3.545			
Facility 2761	Sanford	NC	Solar	Intermediate	Yes	5000			
Facility 2762	Cary	NC	Solar	Intermediate	Yes	8.866			
Facility 2763	Raleigh	NC	Solar	Intermediate	Yes	3.508			
Facility 2764	Willow Spring	NC	Solar	Intermediate	Yes	6.365			
Facility 2765	Sanford	NC	Solar	Intermediate	Yes	4.24			
Facility 2766	Southern Pines	NC	Solar	Intermediate	Yes	19.92			
Facility 2767	Wake Forest	NC	Solar	Intermediate	Yes	1.76			

on-Utility Generation (cont'd)								
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)		
Facility 2768	Little Switzerland	NC	Solar	Intermediate	Yes	3		
Facility 2769	Cary	NC	Solar	Intermediate	Yes	4.277		
Facility 2770	Carolina Bch	NC	Solar	Intermediate	Yes	2.802		
Facility 2771	Asheville	NC	Solar	Intermediate	Yes	7.099		
Facility 2772	Youngsville	NC	Solar	Intermediate	Yes	3.6		
Facility 2773	Apex	NC	Solar	Intermediate	Yes	7.19		
Facility 2774	Asheville	NC	Solar	Intermediate	Yes	6		
Facility 2775	Cameron	NC	Solar	Intermediate	Yes	4.3		
Facility 2776	Cameron	NC	Solar	Intermediate	Yes	4.3		
Facility 2777	Asheville	NC	Solar	Intermediate	Yes	5		
Facility 2778	Wilmington	NC	Solar	Intermediate	Yes	2.87		
Facility 2779	Fuquay Varina	NC	Solar	Intermediate	Yes	3.9		
Facility 2780	Goldsboro	NC	Solar	Intermediate	Yes	360		
Facility 2781	Cary	NC	Solar	Intermediate	Yes	324		
Facility 2782	Raleigh	NC	Solar	Intermediate	Yes	360		
Facility 2783	Arden	NC	Solar	Intermediate	Yes	396		
Facility 2784	Asheville	NC	Solar	Intermediate	Yes	392		
Facility 2785	Cary	NC	Solar	Intermediate	Yes	396		
Facility 2786	Holly Springs	NC	Solar	Intermediate	Yes	420		
Facility 2787	Morrisville	NC	Solar	Intermediate	Yes	392		
Facility 2788	Raleigh	NC	Solar	Intermediate	Yes	532		
Facility 2789	Wilmington	NC	Solar	Intermediate	Yes	360		
Facility 2790	Godwin	NC	Solar	Intermediate	Yes	4998		
Facility 2791	Cary	NC	Solar	Intermediate	Yes	5.345		
Facility 2792	Cary	NC	Solar	Intermediate	Yes	5.305		
Facility 2793	Norwood	NC	Solar	Intermediate	Yes	8.009		
Facility 2794	Norwood	NC	Solar	Intermediate	Yes	6.038		
Facility 2795	Raleigh	NC	Solar	Intermediate	Yes	9.313		
Facility 2796	Pinehurst	NC	Solar	Intermediate	Yes	5		
Facility 2797	Pinehurst	NC	Solar	Intermediate	Yes	3.56		
Facility 2798	Fairview	NC	Solar	Intermediate	Yes	5.39		
Facility 2799	Kenly	NC	Solar	Intermediate	Yes	3.8		
Facility 2800	Apex	NC	Solar	Intermediate	Yes	4.21		
Facility 2801	Cary	NC	Solar	Intermediate	Yes	5.61		
Facility 2802	Jacksonville	NC	Solar	Intermediate	Yes	2.58		

Ion-Utility Generati	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2803	Pittsboro	NC	Solar	Intermediate	Yes	4.03
Facility 2804	Holly Springs	NC	Solar	Intermediate	Yes	3.32
Facility 2805	Goldsboro	NC	Solar	Intermediate	Yes	4.2
Facility 2806	Aberdeen	NC	Solar	Intermediate	Yes	11.99
Facility 2807	Jacksonville	NC	Solar	Intermediate	Yes	7.667
Facility 2808	Asheville	NC	Solar	Intermediate	Yes	3.9
Facility 2809	Pittsboro	NC	Solar	Intermediate	Yes	3.14
Facility 2810	Raleigh	NC	Solar	Intermediate	Yes	5.262
Facility 2811	Pinehurst	NC	Solar	Intermediate	Yes	2.02
Facility 2812	Black Mountain	NC	Solar	Intermediate	Yes	6
Facility 2813	Raleigh	NC	Solar	Intermediate	Yes	3.15
Facility 2814	Raleigh	NC	Solar	Intermediate	Yes	515
Facility 2815	Asheville	NC	Solar	Intermediate	Yes	8
Facility 2816	Wilmington	NC	Solar	Intermediate	Yes	7.68
Facility 2817	Asheville	NC	Solar	Intermediate	Yes	162.701
Facility 2818	Wilmington	NC	Solar	Intermediate	Yes	96
Facility 2819	Asheboro	NC	Solar	Intermediate	Yes	340
Facility 2820	Wrightsville Beach	NC	Solar	Intermediate	Yes	16
Facility 2821	Asheville	NC	Solar	Intermediate	Yes	4.851
Facility 2822	Asheville	NC	Solar	Intermediate	Yes	3
Facility 2823	Fairview	NC	Solar	Intermediate	Yes	4
Facility 2824	Wilmington	NC	Solar	Intermediate	Yes	5.38
Facility 2825	Robbins	NC	Solar	Intermediate	Yes	2.28
Facility 2826	Benson	NC	Solar	Intermediate	Yes	3.49
Facility 2827	Benson	NC	Solar	Intermediate	Yes	2.58
Facility 2828	Asheville	NC	Solar	Intermediate	Yes	5.04
Facility 2829	Wilmington	NC	Solar	Intermediate	Yes	3.04
Facility 2830	Barnardsville	NC	Solar	Intermediate	Yes	4.7
Facility 2831	Asheville	NC	Solar	Intermediate	Yes	3
Facility 2832	Asheville	NC	Solar	Intermediate	Yes	5.04
Facility 2833	Apex	NC	Solar	Intermediate	Yes	4.12
Facility 2834	Arden	NC	Solar	Intermediate	Yes	5.32
Facility 2835	Cary	NC	Solar	Intermediate	Yes	1.7
Facility 2836	Chapel Hill	NC	Solar	Intermediate	Yes	2.46
Facility 2837	Leicester	NC	Solar	Intermediate	Yes	2.064

Non-Utility Generation	on-Utility Generation (cont'd)								
Facility Name	City/County	<u>State</u>	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)			
Facility 2838	Leicester	NC	Solar	Intermediate	Yes	3.07			
Facility 2839	Leicester	NC	Solar	Intermediate	Yes	6.88			
Facility 2840	Pittsboro	NC	Solar	Intermediate	Yes	5.01			
Facility 2841	Weaverville	NC	Solar	Intermediate	Yes	6			
Facility 2842	Asheville	NC	Solar	Intermediate	Yes	7.28			
Facility 2843	Black Mountain	NC	Solar	Intermediate	Yes	7.96			
Facility 2844	Raleigh	NC	Solar	Intermediate	Yes	2.44			
Facility 2845	New Bern	NC	Solar	Intermediate	Yes	3.45			
Facility 2846	Weaverville	NC	Solar	Intermediate	Yes	5.45			
Facility 2847	Raleigh	NC	Solar	Intermediate	Yes	3.76			
Facility 2848	Swannanoa	NC	Solar	Intermediate	Yes	6			
Facility 2849	Cary	NC	Solar	Intermediate	Yes	3.83			
Facility 2850	Wilmington	NC	Solar	Intermediate	Yes	4.95			
Facility 2851	Godwin	NC	Solar	Intermediate	Yes	5			
Facility 2852	Garner	NC	Solar	Intermediate	Yes	3.04			
Facility 2853	Wendell	NC	Solar	Intermediate	Yes	5.821			
Facility 2854	Raleigh	NC	Solar	Intermediate	Yes	4.271			
Facility 2855	Cary	NC	Solar	Intermediate	Yes	4.792			
Facility 2856	Chapel Hill	NC	Solar	Intermediate	Yes	8.139			
Facility 2857	Raleigh	NC	Solar	Intermediate	Yes	4			
Facility 2858	Morrisville	NC	Solar	Intermediate	Yes	6.609			
Facility 2859	Raleigh	NC	Solar	Intermediate	Yes	12.85			
Facility 2860	Pittsboro	NC	Solar	Intermediate	Yes	4.53			
Facility 2861	Pittsboro	NC	Solar	Intermediate	Yes	2.5			
Facility 2862	Clayton	NC	Solar	Intermediate	Yes	4.62			
Facility 2863	Wilmington	NC	Solar	Intermediate	Yes	3.5			
Facility 2864	Garner	NC	Solar	Intermediate	Yes	3.261			
Facility 2865	Holly Springs	NC	Solar	Intermediate	Yes	9.21			
Facility 2866	Asheville	NC	Solar	Intermediate	Yes	1.65			
Facility 2867	Asheville	NC	Solar	Intermediate	Yes	2.26			
Facility 2868	Leland	NC	Solar	Intermediate	Yes	4.89			
Facility 2869	West End	NC	Solar	Intermediate	Yes	4.2			
Facility 2870	Hampstead	NC	Solar	Intermediate	Yes	6.27			
Facility 2871	Zebulon	NC	Solar	Intermediate	Yes	3.614			
Facility 2872	Fuquay Varina	NC	Solar	Intermediate	Yes	4.582			

on-Utility Generation	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2873	Chapel Hill	NC	Solar	Intermediate	Yes	3.918
Facility 2874	Waynesville	NC	Solar	Intermediate	Yes	6
Facility 2875	Raleigh	NC	Solar	Intermediate	Yes	5
Facility 2876	Southern Pines	NC	Solar	Intermediate	Yes	1.8
Facility 2877	Chapel Hill	NC	Solar	Intermediate	Yes	9.46
Facility 2878	Atlantic beach	NC	Solar	Intermediate	Yes	2.88
Facility 2879	Barnardsville	NC	Solar	Intermediate	Yes	7.6
Facility 2880	Cary	NC	Solar	Intermediate	Yes	2.64
Facility 2881	Henderson	NC	Solar	Intermediate	Yes	6.84
Facility 2882	Leicester	NC	Solar	Intermediate	Yes	4.8
Facility 2883	Clayton	NC	Solar	Intermediate	Yes	5.2
Facility 2884	Cary	NC	Solar	Intermediate	Yes	6.029
Facility 2885	Norlina	NC	Solar	Intermediate	Yes	7.687
Facility 2886	Cary	NC	Solar	Intermediate	Yes	20
Facility 2887	Warsaw	NC	Solar	Intermediate	Yes	630
Facility 2888	Linden	NC	Solar	Intermediate	Yes	3.947
Facility 2889	Asheville	NC	Solar	Intermediate	Yes	1.5
Facility 2890	Bailey	NC	Solar	Intermediate	Yes	10000
Facility 2891	Pittsboro	NC	Solar	Intermediate	Yes	5.402
Facility 2892	Wilmington	NC	Solar	Intermediate	Yes	1
Facility 2893	Morrisville	NC	Solar	Intermediate	Yes	4.992
Facility 2894	Wilmington	NC	Solar	Intermediate	Yes	4.54
Facility 2895	Raleigh	NC	Solar	Intermediate	Yes	6.31
Facility 2896	Wake Forest	NC	Solar	Intermediate	Yes	34.2
Facility 2897	Weaverville	NC	Solar	Intermediate	Yes	4.164
Facility 2898	Leicester	NC	Solar	Intermediate	Yes	7.65
Facility 2899	Garner	NC	Solar	Intermediate	Yes	6.33
Facility 2900	Pinehurst	NC	Solar	Intermediate	Yes	8
Facility 2901	Chapel Hill	NC	Solar	Intermediate	Yes	12.132
Facility 2902	Raleigh	NC	Solar	Intermediate	Yes	9.6
Facility 2903	Apex	NC	Solar	Intermediate	Yes	6.396
Facility 2904	Asheville	NC	Solar	Intermediate	Yes	6.033
Facility 2905	Asheville	NC	Solar	Intermediate	Yes	18
Facility 2906	Fairmont	NC	Solar	Intermediate	Yes	5000
Facility 2907	Garner	NC	Solar	Intermediate	Yes	3.457

Non-Utility Generation	on (cont'd)					
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2908	Chocowinity	NC	Solar	Intermediate	Yes	4500
Facility 2909	Kinston	NC	Solar	Intermediate	Yes	5000
Facility 2910	Laurinburg	NC	Solar	Intermediate	Yes	5000
Facility 2911	New Bern	NC	Solar	Intermediate	Yes	4500
Facility 2912	Southport	NC	Solar	Intermediate	Yes	2.33
Facility 2913	Black Mountain	NC	Solar	Intermediate	Yes	15.2
Facility 2914	Black Mountain	NC	Solar	Intermediate	Yes	20
Facility 2915	Black Mountain	NC	Solar	Intermediate	Yes	9.6
Facility 2916	Black Mountain	NC	Solar	Intermediate	Yes	30
Facility 2917	Cary	NC	Solar	Intermediate	Yes	5.94
Facility 2918	Youngsville	NC	Solar	Intermediate	Yes	5.345
Facility 2919	Cary	NC	Solar	Intermediate	Yes	3.25
Facility 2920	Asheville	NC	Solar	Intermediate	Yes	24
Facility 2921	Apex	NC	Solar	Intermediate	Yes	7.238
Facility 2922	Lumberton	NC	Solar	Intermediate	Yes	1000
Facility 2923	Lumberton	NC	Solar	Intermediate	Yes	1000
Facility 2924	Cary	NC	Solar	Intermediate	Yes	2.721
Facility 2925	Black Mountain	NC	Solar	Intermediate	Yes	5.31
Facility 2926	Henderson	NC	Solar	Intermediate	Yes	50.4
Facility 2927	Henderson	NC	Solar	Intermediate	Yes	17.5
Facility 2928	Henderson	NC	Solar	Intermediate	Yes	4998
Facility 2929	Pittsboro	NC	Solar	Intermediate	Yes	5.831
Facility 2930	Asheville	NC	Solar	Intermediate	Yes	12.548
Facility 2931	Apex	NC	Solar	Intermediate	Yes	6.219
Facility 2932	Raleigh	NC	Solar	Intermediate	Yes	6.5
Facility 2933	Manson	NC	Solar	Intermediate	Yes	3.88
Facility 2934	Fuquay Varina	NC	Solar	Intermediate	Yes	6.742
Facility 2935	Holly Springs	NC	Solar	Intermediate	Yes	2.778
Facility 2936	Candler	NC	Solar	Intermediate	Yes	4.63
Facility 2937	Asheville	NC	Solar	Intermediate	Yes	5.888
Facility 2938	Pittsboro	NC	Solar	Intermediate	Yes	48
Facility 2939	Wilmington	NC	Solar	Intermediate	Yes	3.97
Facility 2940	Fuquay Varina	NC	Solar	Intermediate	Yes	11.832
Facility 2941	Raleigh	NC	Solar	Intermediate	Yes	7.7
Facility 2942	Chapel Hill	NC	Solar	Intermediate	Yes	2000

Ion-Utility Generation	on (cont'd)					
Facility Name	City/County	<u>State</u>	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2943	Raleigh	NC	Solar	Intermediate	Yes	2.45
Facility 2944	Henderson	NC	Solar	Intermediate	Yes	5000
Facility 2945	Garner	NC	Solar	Intermediate	Yes	10
Facility 2946	Wake Forest	NC	Solar	Intermediate	Yes	3.41
Facility 2947	Pittsboro	NC	Solar	Intermediate	Yes	3.3
Facility 2948	Black Mountain	NC	Solar	Intermediate	Yes	1.44
Facility 2949	Cary	NC	Solar	Intermediate	Yes	1.5
Facility 2950	Pinehurst	NC	Solar	Intermediate	Yes	0.612
Facility 2951	Nashville	NC	Solar	Intermediate	Yes	4.15
Facility 2952	Raleigh	NC	Solar	Intermediate	Yes	6.49
Facility 2953	Asheville	NC	Solar	Intermediate	Yes	2.6
Facility 2954	Asheville	NC	Solar	Intermediate	Yes	3.2
Facility 2955	Pittsboro	NC	Solar	Intermediate	Yes	4
Facility 2956	Asheville	NC	Solar	Intermediate	Yes	1.809
Facility 2957	Clayton	NC	Solar	Intermediate	Yes	3.74
Facility 2958	Rose Hill	NC	Biomass	Intermediate	Yes	120
Facility 2959	Goldsboro	NC	Solar	Intermediate	Yes	4.61
Facility 2960	Raleigh	NC	Solar	Intermediate	Yes	6.91
Facility 2961	Holly Springs	NC	Solar	Intermediate	Yes	6.95
Facility 2962	Wadesboro	NC	Solar	Intermediate	Yes	4998
Facility 2963	Wadesboro	NC	Solar	Intermediate	Yes	4998
Facility 2964	Wadesboro	NC	Solar	Intermediate	Yes	5000
Facility 2965	Raleigh	NC	Solar	Intermediate	Yes	52.2
Facility 2966	Roxboro	NC	Solar	Intermediate	Yes	4975
Facility 2967	Raleigh	NC	Solar	Intermediate	Yes	308
Facility 2968	Raleigh	NC	Solar	Intermediate	Yes	375
Facility 2969	Asheboro	NC	Solar	Intermediate	Yes	3.724
Facility 2970	Cary	NC	Solar	Intermediate	Yes	5.344
Facility 2971	Chapel Hill	NC	Solar	Intermediate	Yes	8.196
Facility 2972	Black Mountain	NC	Solar	Intermediate	Yes	9.05
Facility 2973	Pittsboro	NC	Solar	Intermediate	Yes	2.24
Facility 2974	Wallace	NC	Solar	Intermediate	Yes	1990
Facility 2975	Southern Pines	NC	Solar	Intermediate	Yes	5.96
Facility 2976	Cary	NC	Solar	Intermediate	Yes	9.135
Facility 2977	Lumberton	NC	Solar	Intermediate	Yes	6.988

Non-Utility Generation	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 2978	Sanford	NC	Solar	Intermediate	Yes	5.478
Facility 2979	Cary	NC	Solar	Intermediate	Yes	5.254
Facility 2980	Pinehurst	NC	Solar	Intermediate	Yes	1
Facility 2981	Four Oaks	NC	Solar	Intermediate	Yes	4.126
Facility 2982	Wilmington	NC	Solar	Intermediate	Yes	40
Facility 2983	Cary	NC	Solar	Intermediate	Yes	6.016
Facility 2984	Canton	NC	Solar	Intermediate	Yes	9.917
Facility 2985	Pittsboro	NC	Solar	Intermediate	Yes	4.146
Facility 2986	Pittsboro	NC	Solar	Intermediate	Yes	2.26
Facility 2987	Swannanoa	NC	Solar	Intermediate	Yes	9.46
Facility 2988	Warrenton	NC	Solar	Intermediate	Yes	4975
Facility 2989	Goldsboro	NC	Solar	Intermediate	Yes	3.097
Facility 2990	Warsaw	NC	Solar	Intermediate	Yes	1900
Facility 2991	Warsaw	NC	Solar	Intermediate	Yes	1990
Facility 2992	Fuquay Varina	NC	Solar	Intermediate	Yes	3.069
Facility 2993	Maxton	NC	Solar	Intermediate	Yes	4975
Facility 2994	Cameron	NC	Solar	Intermediate	Yes	4.94
Facility 2995	Cameron	NC	Solar	Intermediate	Yes	4.6
Facility 2996	Goldsboro	NC	Solar	Intermediate	Yes	440.8
Facility 2997	Goldsboro	NC	Solar	Intermediate	Yes	440.8
Facility 2998	Goldsboro	NC	Solar	Intermediate	Yes	4.01
Facility 2999	Asheville	NC	Solar	Intermediate	Yes	4.26
Facility 3000	Fuquay Varina	NC	Solar	Intermediate	Yes	5.36
Facility 3001	Mt Olive	NC	Solar	Intermediate	Yes	5000
Facility 3002	Goldsboro	NC	Solar	Intermediate	Yes	5000
Facility 3003	Goldsboro	NC	Solar	Intermediate	Yes	5000
Facility 3004	Asheville	NC	Solar	Intermediate	Yes	6.45
Facility 3005	Knightdale	NC	Solar	Intermediate	Yes	0.5
Facility 3006	Clayton	NC	Solar	Intermediate	Yes	3.9
Facility 3007	La Grange	NC	Solar	Intermediate	Yes	5.07
Facility 3008	Apex	NC	Solar	Intermediate	Yes	3.4
Facility 3009	Smithfield	NC	Solar	Intermediate	Yes	5000
Facility 3010	Asheville	NC	Solar	Intermediate	Yes	6.063
Facility 3011	Apex	NC	Solar	Intermediate	Yes	4.28
Facility 3012	New Hill	NC	Solar	Intermediate	Yes	5.088

Non-Utility Generati	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 3013	Leicester	NC	Solar	Intermediate	Yes	5.438
Facility 3014	Raleigh	NC	Solar	Intermediate	Yes	2.02
Facility 3015	Siler City	NC	Solar	Intermediate	Yes	4998
Facility 3016	Raleigh	NC	Solar	Intermediate	Yes	79
Facility 3017	Apex	NC	Solar	Intermediate	Yes	15
Facility 3018	Apex	NC	Solar	Intermediate	Yes	96
Facility 3019	Middlesex	NC	Solar	Intermediate	Yes	9.078
Facility 3020	Asheville	NC	Solar	Intermediate	Yes	4.66
Facility 3021	Garner	NC	Solar	Intermediate	Yes	3.14
Facility 3022	Canton	NC	Solar	Intermediate	Yes	6.047
Facility 3023	Raleigh	NC	Solar	Intermediate	Yes	5.618
Facility 3024	Pinehurst	NC	Solar	Intermediate	Yes	4.365
Facility 3025	Barnardsville	NC	Solar	Intermediate	Yes	2.6
Facility 3026	Pittsboro	NC	Solar	Intermediate	Yes	7.6
Facility 3027	Raleigh	NC	Solar	Intermediate	Yes	5.93
Facility 3028	Wilmingotn	NC	Solar	Intermediate	Yes	3.8
Facility 3029	Raleigh	NC	Solar	Intermediate	Yes	1.75
Facility 3030	Pittsboro	NC	Solar	Intermediate	Yes	2.96
Facility 3031	Raleigh	NC	Solar	Intermediate	Yes	2.44
Facility 3032	Asheville	NC	Solar	Intermediate	Yes	5.5
Facility 3033	New Bern	NC	Solar	Intermediate	Yes	10
Facility 3034	Pittsboro	NC	Solar	Intermediate	Yes	1.632
Facility 3035	Raleigh	NC	Solar	Intermediate	Yes	3.82
Facility 3036	Holly Springs	NC	Solar	Intermediate	Yes	4.53
Facility 3037	Apex	NC	Solar	Intermediate	Yes	3.84
Facility 3038	West End	NC	Solar	Intermediate	Yes	3.28
Facility 3039	Boiling Spring Lakes	NC	Solar	Intermediate	Yes	2.48
Facility 3040	Raleigh	NC	Solar	Intermediate	Yes	9.99
Facility 3041	Candler	NC	Solar	Intermediate	Yes	6
Facility 3042	Garner	NC	Solar	Intermediate	Yes	4
Facility 3043	Raleigh	NC	Solar	Intermediate	Yes	2.83
Facility 3044	Asheville	NC	Solar	Intermediate	Yes	2.11
Facility 3045	Cary	NC	Solar	Intermediate	Yes	4.78
Facility 3046	Goldsboro	NC	Solar	Intermediate	Yes	2.37
Facility 3047	Raleigh	NC	Solar	Intermediate	Yes	2.58

lon-Utility Generation	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 3048	Wilmington	NC	Solar	Intermediate	Yes	2.28
Facility 3049	Siler City	NC	Solar	Intermediate	Yes	8.64
Facility 3050	Raleigh	NC	Solar	Intermediate	Yes	4.08
Facility 3051	West End	NC	Solar	Intermediate	Yes	0.86
Facility 3052	Raleigh	NC	Solar	Intermediate	Yes	4.01
Facility 3053	Spring Hope	NC	Solar	Intermediate	Yes	13
Facility 3054	Asheville	NC	Solar	Intermediate	Yes	5
Facility 3055	Raleigh	NC	Solar	Intermediate	Yes	8.59
Facility 3056	Waynesville	NC	Solar	Intermediate	Yes	5.68
Facility 3057	Wilmington	NC	Solar	Intermediate	Yes	2.6
Facility 3058	Waynesville	NC	Solar	Intermediate	Yes	7
Facility 3059	Raleigh	NC	Solar	Intermediate	Yes	3.19
Facility 3060	Raleigh	NC	Solar	Intermediate	Yes	3.19
Facility 3061	Biltmore Lakes	NC	Solar	Intermediate	Yes	5.46
Facility 3062	Candler	NC	Solar	Intermediate	Yes	10.13
Facility 3063	Raleigh	NC	Solar	Intermediate	Yes	5.478
Facility 3064	Raleigh	NC	Solar	Intermediate	Yes	5.744
Facility 3065	Roxboro	NC	Solar	Intermediate	Yes	2.907
Facility 3066	Pinehurst	NC	Solar	Intermediate	Yes	4.023
Facility 3067	Henderson	NC	Solar	Intermediate	Yes	3.686
Facility 3068	Asheville	NC	Solar	Intermediate	Yes	4.774
Facility 3069	Raleigh	NC	Solar	Intermediate	Yes	5.888
Facility 3070	Siler City	NC	Solar	Intermediate	Yes	6.51
Facility 3071	Elm City	NC	Solar	Intermediate	Yes	4975
Facility 3072	Rockingham	NC	Solar	Intermediate	Yes	6.647
Facility 3073	Asheville	NC	Solar	Intermediate	Yes	1.94
Facility 3074	Asheville	NC	Solar	Intermediate	Yes	5.01
Facility 3075	Clayton	NC	Solar	Intermediate	Yes	6.452
Facility 3076	Leland	NC	Solar	Intermediate	Yes	5.813
Facility 3077	Asheville	NC	Solar	Intermediate	Yes	3.563
Facility 3078	Wilmington	NC	Solar	Intermediate	Yes	2.946
Facility 3079	Atlantic beach	NC	Solar	Intermediate	Yes	7.542
Facility 3080	Lillington	NC	Solar	Intermediate	Yes	11.351
Facility 3081	Albertson	NC	Solar	Intermediate	Yes	5000
Facility 3082	Raleigh	NC	Solar	Intermediate	Yes	5.588

Non-Utility Generation	on (cont'd)					
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 3083	Raleigh	NC	Solar	Intermediate	Yes	5.422
Facility 3084	Barnardsville	NC	Solar	Intermediate	Yes	7.032
Facility 3085	Arden	NC	Solar	Intermediate	Yes	6.446
Facility 3086	Wilmington	NC	Solar	Intermediate	Yes	9.056
Facility 3087	Henderson	NC	Solar	Intermediate	Yes	5000
Facility 3088	Asheville	NC	Solar	Intermediate	Yes	2.741
Facility 3089	Apex	NC	Solar	Intermediate	Yes	5.084
Facility 3090	Asheville	NC	Solar	Intermediate	Yes	3.57
Facility 3091	Blanch	NC	Solar	Intermediate	Yes	5000
Facility 3092	Blanch	NC	Solar	Intermediate	Yes	4950
Facility 3093	Blanch	NC	Solar	Intermediate	Yes	4975
Facility 3094	Cary	NC	Solar	Intermediate	Yes	7.58
Facility 3095	Cary	NC	Solar	Intermediate	Yes	3.54
Facility 3096	Asheville	NC	Solar	Intermediate	Yes	3.631
Facility 3097	Raleigh	NC	Solar	Intermediate	Yes	5.149
Facility 3098	Apex	NC	Solar	Intermediate	Yes	6
Facility 3099	Leland	NC	Solar	Intermediate	Yes	7.924
Facility 3100	Willow Spring	NC	Solar	Intermediate	Yes	3.097
Facility 3101	Raleigh	NC	Solar	Intermediate	Yes	5.477
Facility 3102	Asheville	NC	Solar	Intermediate	Yes	7.6
Facility 3103	Fuquay Varina	NC	Solar	Intermediate	Yes	5.006
Facility 3104	Leland	NC	Solar	Intermediate	Yes	4.95
Facility 3105	Roxboro	NC	Solar	Intermediate	Yes	11.919
Facility 3106	Wilmington	NC	Solar	Intermediate	Yes	4.483
Facility 3107	Red Springs	NC	Solar	Intermediate	Yes	4998
Facility 3108	Red Springs	NC	Solar	Intermediate	Yes	4998

## **DEP Non-Utility Generator Listing - H4 South Carolina**

Facility Name	City/County	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
	So	uth Carolir	na Generators:	180000000000000000000000000000000000000		
Facility 1	Florence	SC	Solar	Intermediate	Yes	18.015
Facility 2	Sumter	SC	Solar	Intermediate	Yes	13.162
Facility 3	Elgin	SC	Solar	Intermediate	Yes	16.053
Facility 4	Florence	SC	Solar	Intermediate	Yes	5.888
Facility 5	Sumter	SC	Solar	Intermediate	Yes	5.702
Facility 6	Manning	SC	Solar	Intermediate	Yes	8.084
Facility 7	Lamar	SC	Solar	Intermediate	Yes	7.759
Facility 8	Hartsville	SC	Solar	Intermediate	Yes	7.365
Facility 9	Hartsville	SC	Solar	Intermediate	Yes	21.274
Facility 10	Sumter	SC	Solar	Intermediate	Yes	16.402
Facility 11	Sumter	SC	Solar	Intermediate	Yes	5.534
Facility 12	Sumter	SC	Solar	Intermediate	Yes	16.164
Facility 13	Sumter	SC	Solar	Intermediate	Yes	4.533
Facility 14	Lake City	SC	Solar	Intermediate	Yes	5.204
Facility 15	Florence	SC	Solar	Intermediate	Yes	4.025
Facility 16	Florence	SC	Solar	Intermediate	Yes	6
Facility 17	Chesterfield	SC	Solar	Intermediate	Yes	6.691
Facility 18	Sumter	SC	Solar	Intermediate	Yes	9.411
Facility 19	Florence	SC	Solar	Intermediate	Yes	3.532
Facility 20	Hartsville	SC	Solar	Intermediate	Yes	7.226
Facility 21	Effingham	SC	Solar	Intermediate	Yes	18.015
Facility 22	Manning	SC	Solar	Intermediate	Yes	4.296
Facility 23	Olanta	SC	Solar	Intermediate	Yes	5.305
Facility 24	Dalzell	SC	Solar	Intermediate	Yes	7.235
Facility 25	Florence	SC	Solar	Intermediate	Yes	6.094
Facility 26	Johnsonville	SC	Solar	Intermediate	Yes	7.523
Facility 27	Wedgefield	SC	Solar	Intermediate	Yes	5.788
Facility 28	Sumter	SC	Solar	Intermediate	Yes	2.613
Facility 29	Darlington	SC	Solar	Intermediate	Yes	11.724
Facility 30	McColl	SC	Solar	Intermediate	Yes	4.514
Facility 31	Bishopville	SC	Solar	Intermediate	Yes	12.736
Facility 32	Sumter	SC	Solar	Intermediate	Yes	7.482

	rator Listing - H4 South		Primary Fuel		Inclusion in	Capacity
<u>Facility Name</u>	<u>City/County</u>	State	Type	<u>Designation</u>	<u>Utility's</u> Resources	(AC kW)
Facility 33	Florence	SC	Solar	Intermediate	Yes	13.415
Facility 34	Elgin	SC	Solar	Intermediate	Yes	4.296
Facility 35	Pageland	SC	Solar	Intermediate	Yes	140
Facility 36	Effingham	SC	Solar	Intermediate	Yes	6.993
Facility 37	Sumter	SC	Solar	Intermediate	Yes	15.689
Facility 38	Rembert	SC	Solar	Intermediate	Yes	50
Facility 39	Effingham	SC	Solar	Intermediate	Yes	799
Facility 40	Lake View	SC	Solar	Intermediate	Yes	3.773
Facility 41	Bishopville	SC	Solar	Intermediate	Yes	4.922
Facility 42	Florence	SC	Solar	Intermediate	Yes	13.6
Facility 43	New Zion	SC	Solar	Intermediate	Yes	7.482
Facility 44	Darlington	SC	Solar	Intermediate	Yes	15.914
Facility 45	Latta	SC	Solar	Intermediate	Yes	5.58
Facility 46	Florence	SC	Solar	Intermediate	Yes	5.127
Facility 47	Marion	SC	Solar	Intermediate	Yes	6.993
Facility 48	Elgin	SC	Solar	Intermediate	Yes	10.706
Facility 49	Florence	SC	Solar	Intermediate	Yes	3.775
Facility 50	Sumter	SC	Solar	Intermediate	Yes	3.805
Facility 51	Darlington	SC	Solar	Intermediate	Yes	5
Facility 52	Darlington	SC	Solar	Intermediate	Yes	10000
Facility 53	Manning	SC	Solar	Intermediate	Yes	6.099
Facility 54	Manning	SC	Solar	Intermediate	Yes	8.445
Facility 55	Elgin	SC	Solar	Intermediate	Yes	8.925
Facility 56	Florence	SC	Solar	Intermediate	Yes	10
Facility 57	Hartsville	SC	Solar	Intermediate	Yes	3.773
Facility 58	Florence	SC	Solar	Intermediate	Yes	12.8
Facility 59	Sumter	SC	Solar	Intermediate	Yes	5.031
Facility 60	Florence	SC	Solar	Intermediate	Yes	8.51
Facility 61	Cheraw	SC	Solar	Intermediate	Yes	18.975
Facility 62	Hartsville	SC	Solar	Intermediate	Yes	17.895
Facility 63	Darlington	SC	Solar	Intermediate	Yes	17.4
Facility 64	Dillon	SC	Solar	Intermediate	Yes	4.73
Facility 65	Hartsville	SC	Solar	Intermediate	Yes	11.765
Facility 66	Elgin	SC	Solar	Intermediate	Yes	16.165
Facility 67	Florence	SC	Solar	Intermediate	Yes	6.634

Facility Name	rator Listing - H4 South <u>City/County</u>	State	Primary Fuel Type	Designation	Inclusion in Utility's Resources	Capacity (AC kW)
Facility 68	Florence	sc	Solar	Intermediate	Yes	10
Facility 69	Lugoff	SC	Solar	Intermediate	Yes	5.014
Facility 70	Nichols	SC	Solar	Intermediate	Yes	6
Facility 71	Nichols	SC	Solar	Intermediate	Yes	6.1
Facility 72	Sumter	SC	Solar	Intermediate	Yes	5.064
Facility 73	Hartsville	SC	Solar	Intermediate	Yes	2.886
Facility 74	Sumter	SC	Solar	Intermediate	Yes	10.221
Facility 75	Turbeville	SC	Solar	Intermediate	Yes	5.649
Facility 76	McColl	SC	Solar	Intermediate	Yes	7.382
Facility 77	Nichols	SC	Solar	Intermediate	Yes	5000
Facility 78	Sumter	SC	Solar	Intermediate	Yes	13.702
Facility 79	Andrews	SC	Solar	Intermediate	Yes	(blank)
Facility 80	Florence	SC	Solar	Intermediate	Yes	12.246
Facility 81	Manning	SC	Solar	Intermediate	Yes	11.462
Facility 82	Gable	SC	Solar	Intermediate	Yes	10.37
Facility 83	Sumter	SC	Solar	Intermediate	Yes	12.123
Facility 84	Lake City	SC	Solar	Intermediate	Yes	2.49
Facility 85	Sumter	SC	Solar	Intermediate	Yes	6.117
Facility 86	Turbeville	SC	Solar	Intermediate	Yes	7.006
Facility 87	Florence	SC	Solar	Intermediate	Yes	10.48
Facility 88	Sumter	SC	Solar	Intermediate	Yes	3.937
Facility 89	Florence	SC	Solar	Intermediate	Yes	14.898
Facility 90	Lamar	SC	Solar	Intermediate	Yes	8
Facility 91	Sumter	SC	Solar	Intermediate	Yes	13.02
Facility 92	Wedgefield	SC	Solar	Intermediate	Yes	5.138
Facility 93	Sumter	SC	Solar	Intermediate	Yes	17.618
Facility 94	Pamplico	SC	Solar	Intermediate	Yes	3.937
Facility 95	Sumter	SC	Solar	Intermediate	Yes	11.012
Facility 96	Latta	SC	Solar	Intermediate	Yes	5.59
Facility 97	Olanta	SC	Solar	Intermediate	Yes	4.514
Facility 98	Hartsville	SC	Solar	Intermediate	Yes	5.66
Facility 99	Sumter	SC	Solar	Intermediate	Yes	2.412
Facility 100	Lugoff	SC	Solar	Intermediate	Yes	1.851
Facility 101	Florence	SC	Solar	Intermediate	Yes	17.599
Facility 102	Florence	SC	Solar	Intermediate	Yes	7.93

Suncy Series	rator Listing - H4 South		-		Inclusion in	
Facility Name	<u>City/County</u>	<u>State</u>	Primary Fuel Type	<u>Designation</u>	<u>Utility's</u> Resources	Capacity (AC kW)
Facility 103	Bishopville	SC	Solar	Intermediate	Yes	10
Facility 104	Florence	SC	Solar	Intermediate	Yes	7.226
Facility 105	Hartsville	SC	Solar	Intermediate	Yes	3.445
Facility 106	Cheraw	SC	Solar	Intermediate	Yes	6.89
Facility 107	Sumter	SC	Solar	Intermediate	Yes	8.417
Facility 108	Lamar	SC	Solar	Intermediate	Yes	17.895
Facility 109	Hemingway	SC	Solar	Intermediate	Yes	2.707
Facility 110	Pamplico	SC	Solar	Intermediate	Yes	7.953
Facility 111	Wallace	SC	Solar	Intermediate	Yes	448
Facility 112	Wallace	SC	Solar	Intermediate	Yes	476
Facility 113	Lake View	SC	Solar	Intermediate	Yes	8.978
Facility 114	Cheraw	SC	Solar	Intermediate	Yes	5
Facility 115	Cheraw	SC	Solar	Intermediate	Yes	2.7
Facility 116	Hartsville	SC	Solar	Intermediate	Yes	8.391
Facility 117	Florence	SC	Solar	Intermediate	Yes	4.898
Facility 118	Hartsville	SC	Solar	Intermediate	Yes	5.729
Facility 119	Dalzell	SC	Solar	Intermediate	Yes	14.724
Facility 120	Effingham	SC	Solar	Intermediate	Yes	8.979
Facility 121	Sumter	SC	Solar	Intermediate	Yes	5.788
Facility 122	Bishopville	SC	Solar	Intermediate	Yes	4.341
Facility 123	Sumter	SC	Solar	Intermediate	Yes	13.778
Facility 124	Florence	SC	Solar	Intermediate	Yes	12.814
Facility 125	Sumter	SC	Solar	Intermediate	Yes	2.64
Facility 126	Lugoff	SC	Solar	Intermediate	Yes	7.348
Facility 127	Hartsville	SC	Solar	Intermediate	Yes	7.759
Facility 128	Sumter	SC	Solar	Intermediate	Yes	5.971
Facility 129	Timmonsville	SC	Solar	Intermediate	Yes	8.392
Facility 130	Florence	SC	Solar	Intermediate	Yes	5.196
Facility 131	Hartsville	SC	Solar	Intermediate	Yes	11
Facility 132	Elgin	SC	Solar	Intermediate	Yes	9.024
Facility 133	Timmonsville	SC	Solar	Intermediate	Yes	6.038
Facility 134	Mc Bee	SC	Solar	Intermediate	Yes	5
Facility 135	Mc Bee	SC	Solar	Intermediate	Yes	5
Facility 136	Elgin	SC	Solar	Intermediate	Yes	6.123
Facility 137	Florence	SC	Solar	Intermediate	Yes	4

- Non-ounty dene	rator Listing - H4 South	r Caronna (	cont ay		Inclusion in	
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	<u>Utility's</u>	Capacity (AC kW)
F10. 420	Heater III.	5.0	C. L.	Internal Prince	Resources	6.020
Facility 138	Hartsville	SC	Solar	Intermediate	Yes	6.038
Facility 139	Bennettsville	SC	Solar	Intermediate	Yes	8.859
Facility 140	Elgin	SC	Solar	Intermediate	Yes	6.064
Facility 141	Elgin	SC	Solar	Intermediate	Yes	6.25
Facility 142	Johnsonville	SC	Solar	Intermediate	Yes	5.562
Facility 143	Darlington	SC	Solar	Intermediate	Yes	140
Facility 144	Sumter	SC	Solar	Intermediate	Yes	11.4
Facility 145	Florence	SC	Solar	Intermediate	Yes	9.1
Facility 146	Florence	SC	Solar	Intermediate	Yes	6.177
Facility 147	Bethune	SC	Solar	Intermediate	Yes	8.029
Facility 148	Sumter	SC	Solar	Intermediate	Yes	7.958
Facility 149	Olanta	SC	Solar	Intermediate	Yes	5.031
Facility 150	Elgin	SC	Solar	Intermediate	Yes	5.633
Facility 151	Sumter	SC	Solar	Intermediate	Yes	12.847
Facility 152	Kingstree	SC	Solar	Intermediate	Yes	7.568
Facility 153	Elgin	SC	Solar	Intermediate	Yes	8.082
Facility 154	Florence	SC	Solar	Intermediate	Yes	2.503
Facility 155	Cheraw	SC	Solar	Intermediate	Yes	3.617
Facility 156	Sumter	SC	Solar	Intermediate	Yes	4.397
Facility 157	Sumter	SC	Solar	Intermediate	Yes	5.788
Facility 158	Sumter	SC	Solar	Intermediate	Yes	2.894
Facility 159	Cheraw	SC	Solar	Intermediate	Yes	4.341
Facility 160	Hartsville	SC	Solar	Intermediate	Yes	10.265
Facility 161	Sumter	SC	Solar	Intermediate	Yes	7.6
Facility 162	Mullins	SC	Solar	Intermediate	Yes	2.653
Facility 163	Dalzell	SC	Solar	Intermediate	Yes	10.651
Facility 164	Bishopville	SC	Solar	Intermediate	Yes	4.533
Facility 165	Rembert	SC	Solar	Intermediate	Yes	2.851
Facility 166	Hartsville	SC	Solar	Intermediate	Yes	10.336
Facility 167	Sumter	SC	Solar	Intermediate	Yes	9.01
Facility 168	Florence	SC	Solar	Intermediate	Yes	3.655
Facility 169	Florence	SC	Solar	Intermediate	Yes	17.529
Facility 170	Lugoff	SC	Solar	Intermediate	Yes	15.106
Facility 171	Elgin	SC	Solar	Intermediate	Yes	6.858
Facility 172	Lugoff	SC	Solar	Intermediate	Yes	3.452

	rator Listing - H4 South		-		Inclusion in	
Facility Name	<u>City/County</u>	State	Primary Fuel Type	Designation	<u>Utility's</u> Resources	Capacity (AC kW)
Facility 173	Elgin	SC	Solar	Intermediate	Yes	8.979
Facility 174	Cheraw	SC	Solar	Intermediate	Yes	6.257
Facility 175	Florence	SC	Solar	Intermediate	Yes	8.186
Facility 176	Sumter	SC	Solar	Intermediate	Yes	2.5
Facility 177	Sumter	SC	Solar	Intermediate	Yes	13.881
Facility 178	Cheraw	SC	Solar	Intermediate	Yes	4.035
Facility 179	Sumter	SC	Solar	Intermediate	Yes	2.613
Facility 180	Florence	SC	Solar	Intermediate	Yes	17.642
Facility 181	Hartsville	SC	Solar	Intermediate	Yes	10
Facility 182	Chesterfield	SC	Solar	Intermediate	Yes	5.756
Facility 183	Marion	SC	Solar	Intermediate	Yes	2.492
Facility 184	Sumter	SC	Solar	Intermediate	Yes	3.01
Facility 185	Sumter	SC	Solar	Intermediate	Yes	9.727
Facility 186	Florence	SC	Solar	Intermediate	Yes	6
Facility 187	Latta	SC	Solar	Intermediate	Yes	4.73
Facility 188	Florence	SC	Biomass	Intermediate	Yes	10000
Facility 189	Bishopville	SC	Solar	Intermediate	Yes	3.003
Facility 190	Johnsonville	SC	Solar	Intermediate	Yes	5.59
Facility 191	Cheraw	SC	Solar	Intermediate	Yes	3.564
Facility 192	Cheraw	SC	Solar	Intermediate	Yes	5.464
Facility 193	Sumter	SC	Solar	Intermediate	Yes	5.495
Facility 194	Florence	SC	Solar	Intermediate	Yes	1.5
Facility 195	Sumter	SC	Solar	Intermediate	Yes	6.257
Facility 196	Florence	SC	Solar	Intermediate	Yes	10.37
Facility 197	Sumter	SC	Solar	Intermediate	Yes	3.376
Facility 198	Timmonsville	SC	Solar	Intermediate	Yes	5.414
Facility 199	Florence	SC	Solar	Intermediate	Yes	9.035
Facility 200	Bishopville	SC	Solar	Intermediate	Yes	6.007
Facility 201	Sumter	SC	Solar	Intermediate	Yes	7.258
Facility 202	Sumter	SC	Solar	Intermediate	Yes	5.227
Facility 203	Sumter	SC	Solar	Intermediate	Yes	6.752
Facility 204	Sumter	SC	Solar	Intermediate	Yes	13.34
Facility 205	Sumter	SC	Solar	Intermediate	Yes	5.325
Facility 206	Sumter	SC	Solar	Intermediate	Yes	4.78
Facility 207	Cheraw	SC	Solar	Intermediate	Yes	648

Hon-ounty dene	rator Listing - H4 South	Carvilla (	-		Inclusion in	
<u>Facility Name</u>	City/County	State	Primary Fuel Type	Designation	<u>Utility's</u> Resources	Capacity (AC kW)
Facility 208	Hartsville	SC	Solar	Intermediate	Yes	7.008
Facility 209	Florence	SC	Solar	Intermediate	Yes	260
Facility 210	Hartsville	SC	Solar	Intermediate	Yes	5.534
Facility 211	Elgin	SC	Solar	Intermediate	Yes	9.062
Facility 212	Sumter	SC	Solar	Intermediate	Yes	9.631
Facility 213	Sumter	SC	Solar	Intermediate	Yes	2.58
Facility 214	Sumter	SC	Biogas	Intermediate	Yes	1546
Facility 215	Sumter	SC	Solar	Intermediate	Yes	10
Facility 216	Rembert	SC	Solar	Intermediate	Yes	4.341
Facility 217	Florence	SC	Solar	Intermediate	Yes	504
Facility 218	Sumter	SC	Solar	Intermediate	Yes	3.365
Facility 219	Florence	SC	Solar	Intermediate	Yes	2.5
Facility 220	Hartsville	SC	Solar	Intermediate	Yes	5.064
Facility 221	Timmonsville	SC	Solar	Intermediate	Yes	2.009
Facility 222	Bethune	SC	Solar	Intermediate	Yes	3
Facility 223	Sumter	SC	Solar	Intermediate	Yes	1.92
Facility 224	Elgin	SC	Solar	Intermediate	Yes	2.5
Facility 225	Cheraw	SC	Solar	Intermediate	Yes	5.788
Facility 226	Rembert	SC	Solar	Intermediate	Yes	18
Facility 227	Manning SC	SC	Solar	Intermediate	Yes	2.851
Facility 228	Sumter	SC	Solar	Intermediate	Yes	13.313
Facility 229	Sumter	SC	Solar	Intermediate	Yes	5.888
Facility 230	Florence	SC	Solar	Intermediate	Yes	3.445
Facility 231	Elgin	SC	Solar	Intermediate	Yes	7.348
Facility 232	Sumter	SC	Solar	Intermediate	Yes	5.168
Facility 233	Green Sea	SC	Solar	Intermediate	Yes	3.043
Facility 234	Florence	SC	Solar	Intermediate	Yes	4.198
Facility 235	Sumter	SC	Solar	Intermediate	Yes	9.181
Facility 236	Darlington	SC	Solar	Intermediate	Yes	5.786
Facility 237	McColl	SC	Solar	Intermediate	Yes	4.341
Facility 238	Hartsville	SC	Solar	Intermediate	Yes	2.653
Facility 239	Hartsville	SC	Solar	Intermediate	Yes	3.617
Facility 240	Florence	SC	Solar	Intermediate	Yes	1.72
Facility 241	Elgin	SC	Solar	Intermediate	Yes	6.557
Facility 242	Bishopville	SC	Solar	Intermediate	Yes	4.341

DEP Non-Utility Generator Listing - H4 South Carolina (cont'd)							
Facility Name	City/County	State	Primary Fuel Type	<u>Designation</u>	Inclusion in Utility's Resources	Capacity (AC kW)	
Facility 243	Lamar	SC	Solar	Intermediate	Yes	11.46	
Facility 244	Cheraw	SC	Solar	Intermediate	Yes	5.38	
Facility 245	Lugoff	SC	Solar	Intermediate	Yes	6.613	
Facility 246	Sumter	SC	Solar	Intermediate	Yes	5.236	

# 12. <u>CROSS-REFERENCE TABLE & SUBSEQUENT COMMISSION ORDER</u> REQUIREMENTS

This section contains a cross-reference table, Table 12-A, that lists each requirement for the 2017 IRP Update Report, as well as the location of the Company's compliance with each.

Additionally, based upon the Commission's 2016 Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans as part of Docket No. E-100, Sub 147, Table 12-B includes the location of the Company's required responses in this 2017 Update IRP Report.

# Table 12-A Cross-Reference Table

	Requirement:	Location:
1.	Summary of significant amendments or revisions to most recently filed biennial report	Chapter 4
4.6	(including amendments to type and size of resources identified	
2.	Short term action plan	Chapter 7
		Attachment:
3.	REPS Compliance Plan	NC REPS
		Compliance Plan
	Most recent 10-year history and forecast of:	
4.	- customers by each customer class,	Chapter 5
77.	- energy sales (MWh) by each customer class,	Chapter
	- utilities summer and winter peak load	
	15 year table (w/ and w/o projected supply or demand side resources) of:	
	-Peak loads for summer and winter seasons of each year	
5.	- annual energy forecasts	Chapter 5
••	- Reserve margins	Chapter
	- Load duration curves	
	- Effects of DR and EE programs on forecasted annual energy and peak loads	
6.	Description of future supply-side resources including type of capacity / resource (MW	Chapter 6
<b></b>	rating, fuel source, base, intermediate, or peaking)	
	List of existing units in service with:	
	- type of fuel(s) used	
	- Type of unit (base, int, peak)	
	- Location of existing unit	
7.	- List of units to be retired with location and date	Chapter 8
	- List of units for which there are specific plans for life extension, refurbishment, or	
	upgrading	
	- Other changes to existing generating units that are expected to impact gen capability	
	by 10% or 10 MW	
	Planned Generation Additions with:	
	- Type of fuel used	
8.	- Type of unit (MW rating, base, int, peak)	Chapter 6
	- Location if determined	
	- Summaries of analyses supporting any new gen additions included in its 15-year	
	forecast  List of all NUG facilities	
	- facility name	
9.	- location - primary fuel type	Chapter 10
	1 0 01	-
	- capacity (base, int, peak)	
	- which are included in its total supply of resources	C1
10.	Cumulative resource additions necessary to meet load obligation & reserve margins	Chapter 6

# Table 12-B Commission Order Requirements for 2017 IRP Update Report

	Requirement:	Location:
	Address any refinements made to forecasting methodology to better address	
1.	load response in general, but especially the previous extreme winter weather	Chapter 5
	events	
2.	Concerns regarding reserve margin study outlined by PS & Wilson should be	Chapter 4
4.	acknowledged and fully addressed	Chapter 4
	Work w/ Public Staff to address PS & Wilson concerns and implement	
3.	changes as necessary to help ensure reserve margin targets are fully	Chapter 4
	supported	_
4.	Duke / Public Staff to file joint report summarizing review and conclusions	Chapter 4
₩,	regarding reserve margin summary concerns	Chapter 4
	Evaluate feasibility and benefits of advanced analytic techniques that	
5.	incorporate sub-hourly modeling / more granular system performance data	Chapter 4
	and utilize these resources if feasible.	_



# The Duke Energy Progress

NC Renewable Energy & Energy Efficiency Portfolio Standard (NC REPS) Compliance Plan

September 1, 2017

## NC REPS Compliance Plan Table of Contents

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### **INTRODUCTION:**

Duke Energy Progress, LLC ("DEP" or "the Company") submits its annual Renewable Energy and Energy Efficiency Portfolio Standard ("NC REPS" or "REPS") Compliance Plan ("Compliance Plan") in accordance with NC Gen. Stat. § 62-133.8 and North Carolina Utilities Commission ("the Commission") Rule R8-67(b). This Compliance Plan, set forth in detail in Section II and Section III, provides the required information and outlines the Company's projected plans to comply with NC REPS for the period 2017 to 2019 ("the Planning Period"). Section IV addresses the cost implications of the Company's REPS Compliance Plan.

In 2007, the North Carolina General Assembly enacted Session Law 2007-397 (Senate Bill 3), codified in relevant part as NC Gen. Stat. § 62-133.8, in order to:

- Diversify the resources used to reliably meet the energy needs of consumers in the State;
- Provide greater energy security through the use of indigenous energy resources available within the State;
- Encourage private investment in renewable energy and energy efficiency; and
- Provide improved air quality and other benefits to energy consumers and citizens of the State.

As part of the broad policy initiatives listed above, Senate Bill 3 established the NC REPS, which requires the investor-owned utilities, electric membership corporations or co-operatives, and municipalities to procure or produce renewable energy, or achieve energy efficiency savings, in amounts equivalent to specified percentages of their respective retail megawatt-hour (MWh) sales from the prior calendar year.

Duke Energy Progress seeks to advance these State policies and comply with its REPS obligations through a diverse portfolio of cost-effective renewable energy and energy efficiency resources. Specifically, the key components of Duke Energy Progress' 2017 Compliance Plan include: (1) purchases of renewable energy certificates (RECs); (2) constructing and operating Company-owned renewable facilities; (3) energy efficiency programs that will generate savings that can be counted towards the Company's REPS obligation; and (4) research studies to enhance the Company's ability to comply with its future REPS obligations. The Company believes that these actions yield a diverse portfolio of qualifying resources and allow a flexible mechanism for compliance with the requirements of NC Gen. Stat. § 62-133.8.

In addition, the Company has undertaken, and will continue to undertake, specific regulatory and operational initiatives to support REPS compliance, including: (1) submission of regulatory applications to pursue reasonable and appropriate renewable energy and energy efficiency initiatives in support of the

Company's REPS compliance needs; (2) solicitation, review, and analysis of proposals from renewable energy suppliers offering RECs and diligent pursuit of the most attractive opportunities, as appropriate; and (3) development and implementation of administrative processes to manage the Company's REPS compliance operations, such as procuring and managing renewable resource contracts, accounting for RECs, safely interconnecting renewable energy suppliers, reporting renewable generation to the North Carolina Renewable Energy Tracking System (NC-RETS), and forecasting renewable resource availability and cost in the future.

The Company believes these actions collectively constitute a thorough and prudent plan for compliance with NC REPS and demonstrate the Company's commitment to pursue its renewable energy and energy efficiency strategies for the benefit of its customers.

### I. REPS COMPLIANCE OBLIGATION

Duke Energy Progress calculates its NC REPS Compliance Obligations<sup>8</sup> for 2017, 2018, and 2019 based on interpretation of the statute (NC Gen. Stat. § 62-133.8), the Commission's rules implementing Senate Bill 3 (Rule R8-67), and subsequent Commission orders, as applied to the Company's actual or forecasted retail sales in the Planning Period, as well as the actual and forecasted retail sales of those wholesale customers for whom the Company is supplying REPS compliance services. The Company's wholesale customers for whom it supplies REPS compliance services are the Town of Sharpsburg, the Town of Stantonsburg, the Town of Lucama, the Town of Black Creek, and the Town of Winterville (collectively referred to as "Wholesale" or "Wholesale Customers")<sup>9</sup>. The contracts for all of these towns terminate on December 31, 2017. DEP's obligation to provide REPS compliance service for the towns ends when their power supply agreements terminate; therefore, this Compliance Plan only reflects REPS compliance services for these customers through 2017. Table 1 below shows the Company's retail and Wholesale customers' REPS Compliance Obligation.

. . .

<sup>&</sup>lt;sup>8</sup> For the purposes of this Compliance Plan, Compliance Obligation is more specifically defined as the sum of Duke Energy Progress' native load obligations for both the Company's retail sales and for wholesale native load priority customers' retail sales for whom the Company is supplying REPS compliance. All references to the respective Set-Aside requirements, the General Requirements, and REPS Compliance Obligation of the Company include the aggregate obligations of both Duke Energy Progress and the Wholesale Customers. Also, for purposes of this Compliance Plan, all references to the compliance activities and plans of the Company shall encompass such activities and plans being undertaken by Duke Energy Progress on behalf of the Wholesale Customers.

<sup>&</sup>lt;sup>9</sup> For purposes of this Compliance Plan, Retail Sales is defined as the sum of Duke Energy Progress' retail sales and the retail sales of the Wholesale Customers for whom the company is supplying REPS compliance.

 Table 1:
 Duke Energy Progress' NC REPS Compliance Obligation

Compliance Year	Previous Year DEC Retail Sales (MWhs)	Previous Year Wholesale Sales (MWhs) (1) (2)	Total Retail sales for REPS Compliance (MWhs)	Solar Set- Aside (RECs)	Swine Set- Aside (RECs)	Poultry Set- Aside (RECs)	REPS Requirement (%)	Total REPS Compliance Obligation (RECs)
2017	37,272,480	113,600	37,386,079	52,341	26,170	197,939	6%	2,243,165
2018	37,353,340	0	37,353,340	74,707	26,147	253,695	10%	3,735,334
2019	37,750,361	0	37,750,361	75,501	52,851	253,695	10%	3,775,036

<sup>(1)</sup> Annual compliance REC requirements are determined based on prior-year MWh sales. Retail sales figures shown for compliance years 2018 and 2019, are estimates of 2017 and 2018 retail sales, respectively.

As shown in Table 1, the Company's requirements in the Planning Period include the solar energy resource requirement ("Solar Set-Aside"), swine waste resource requirement ("Swine Waste Set-Aside"), and poultry waste resource requirement ("Poultry Waste Set-Aside"). In addition, the Company must also ensure that, in total, the RECs that it produces or procures, combined with energy efficiency savings, is an amount equivalent to 6% of its prior-year retail sales in compliance year 2017 and 10% of its prior-year retail sales in compliance years 2018 and 2019. The Company refers to this as its Total Obligation. For clarification, the Company refers to its Total Obligation, net of the Solar, Swine Waste, and Poultry Waste Set-Aside requirements, as its General Requirement.

### II. REPS COMPLIANCE PLAN

In accordance with Commission Rule R8-67b(1)(i), the Company describes its planned actions to comply with the Solar, Swine Waste, and Poultry Waste Set-Asides, as well as the General Requirement below. The discussion first addresses the Company's efforts to meet the Set-Aside requirements and then outlines the Company's efforts to meet its General Requirement in the Planning Period.

### A. SOLAR ENERGY RESOURCES

Pursuant to NC Gen. Stat. § 62-133.8(d), the Company must produce or procure solar RECs equal to a minimum of 0.14% of the prior year's total electric energy in megawatt-hours (MWh) sold to retail customers in North Carolina in 2017, and 0.20% of the prior year's total electric energy in megawatt-hours (MWh) sold to retail customers in North Carolina in 2018 and 2019.

Based on the Company's actual retail sales in 2016, the Solar Set-Aside is 52,341 RECs in 2017. Based on forecasted retail sales, the Solar Set-Aside is projected to be approximately 74,707 RECs in 2018 and 75,501 RECs in 2019.

<sup>(2)</sup> DEP's contractual obligation to serve as designated utility compliance aggregator for its wholesale customers for which it provides REPS compliance services ends effective December 31, 2017, and the 2018 and 2019 compliance year totals shown above exclude amounts related to the wholesale customers. Combined estimated retail sales for the Towns of Black Creek, Lucama, Sharpsburg, Stantonsburg, and Winterville total 115,860 and 116,301 MWh for 2018 and 2019. respectively. The wholesale customers' combined poultry requirement for 2018 and 2019 is 798 RECs for each year.

The Company has fully satisfied and vastly exceeded the minimum Solar Set-Aside requirements in the Planning Period through a combination of Power Purchase Agreements and Company-owned solar facilities, including those listed below.

- Camp Lejeune Solar Facility 13MW, located in Onslow County, placed in service in November 2015;
- Warsaw Solar Facility 65MW, located in Duplin County, placed in service in December 2015;
- Fayetteville Solar Facility 23MW, located in Bladen County, placed in service in December 2015; and
- Elm City Solar Facility 40MW, located in Wilson County, placed in service in March 2016.

Additional details with respect to the REC purchase agreements are set forth in Exhibit A.

### B. SWINE WASTE-TO-ENERGY RESOURCES

Pursuant to NC Gen. Stat. § 62-133.8(e), as amended by the NCUC *Order Modifying the Swine and Poultry Waste Set-Aside Requirement and Providing Other Relief*, Docket No. E-100, Sub 113 (October 2016), for compliance years 2017 and 2018, at least 0.07%, and in 2019, at least 0.14%, of prior-year total retail electric energy sold in aggregate by utilities in North Carolina must be supplied by energy derived from swine waste. The Company's Swine Waste Set-Aside is estimated to be 26,170 RECs in 2017, 26,147 RECs in 2018, and 52,851 RECs in 2019.

Swine waste-to-energy compliance challenges have been numerous and varied. Three paths to the creation of swine waste-to-energy RECs have been identified, although each faces unique challenges.

### 1. On-farm generation

Projects consisting of digestion and generation on a single farm or tight cluster of farms often face gas production and feedstock agreement challenges, as well as interconnection difficulties. The Company understands that many farms in NC are contract growers and have only limited term agreements with the integrators. Accordingly, many contract growers are not in a position to provide a firm supply of waste sufficient to support project financing. The Company is exploring ways to overcome such risks. On July 27, 2017 Governor Cooper signed into law the "Competitive Energy Solutions for North Carolina" bill or House Bill 589 ("HB 589") (SL 2017-92), which includes establishing an expedited interconnection review process for swine and poultry waste facilities that are two megawatts or less in size. This provision should help overcome some of the interconnection difficulties projects have experienced in the past.

### 2. Centralized digestion

This type of system would benefit farmers that cannot individually construct and operate an anaerobic digester manure handling system on their own due to the capital expense or just don't have the number of animals required to operate a digester successfully or cost effectively. Farms located close to each other could share the cost of the centrally located digester system. The centralized digester operated by an individual or private company would carry out the operation and maintenance of the digester and its mechanical systems. It would have the same advantages as on-farm digesters of odor reduction, pathogen and weed seed destruction, biogas production and a stable effluent ready to fertilize fields and crops. A potential downside with centralized digestion exists if the liquid swine waste has to be transported to the central site. One project has overcome this risk by co-locating the facility adjacent to a swine processing plant.

The Company recognizes that NIMBY ("Not In My Back Yard") issues may scuttle some developers' plans for overcoming fuel supply and interconnection problems faced by more rural, on-farm projects.

### 3. Directed biogas

In theory, directed biogas<sup>10</sup> reduces costs by using large, efficient, centralized generation in the place of smaller, less-efficient reciprocating engines typical of other projects. Technological advances in this field have helped drive pricing down to comparable levels of on-site generation for swine projects. The Company has worked diligently with Piedmont Natural Gas to help develop alternative natural gas specifications and contracts that developers can utilize for interconnection. Continued challenges in this area include gas clean-up requirements prior to injection and the general lack of physical proximity between clusters of farms and pipeline infrastructure.

The Company has entered into two contracts to purchase swine waste-derived directed biogas from projects in North Carolina. The directed biogas will be transported via intrastate pipelines and used for fuel in the Company's Richmond County, H.F. Lee or Sutton combined cycle plants. The Company continues to explore opportunities for additional directed biogas in North Carolina through discussions with developers as well as participation in a collaborative group working to deploy renewable natural gas in Eastern North Carolina.

<sup>&</sup>lt;sup>3</sup> "Directed Biogas" is defined as pipeline quality methane, injected into the pipeline system, and nominated to Duke Energy Progress generating facilities; this methane is biogenically derived from Swine Waste, Poultry Waste, and general Biomass sources.

In an effort to meet compliance with the Swine Waste Set Aside, the Company (1) continues direct negotiations for additional supplies of both in-state and out-of-state resources; (2) works diligently to understand the technological, permitting, and operational risks associated with various methods of producing qualifying swine RECs to aid developers in overcoming those risks; when those risks cannot be overcome, the Company works with developers via contract amendments to adjust for outcomes that the developers believe are achievable based on new experience; (3) explores and is engaging in modification of current biomass and set-asides contracts by working with developers to add swine waste to their fuel mix; (4) continues pursuit of swine-derived directed biogas from North Carolina facilities to be directed to DEP's combined cycle plants for combustion and generation of zero emission renewable electricity; (5) utilizes the Company's REC trader to search the broker market for out-of-state swine RECs available in the market; and (6) engages the North Carolina Pork Council ("NCPC") in a project evaluation collaboration effort that will allow the Company and the NCPC to discuss project viability, as appropriate with respect to the Company's obligations to keep certain sensitive commercial information confidential.

In spite of Duke Energy Progress' active and diligent efforts to secure resources to comply with its Swine Waste Set-Aside requirements, the Company will not be able to procure sufficient volumes of RECs to meet its pro-rata share of the Swine Waste Set-Aside requirements in 2017. Due to its expected non-compliance in 2017, the Company submitted a motion to the Commission for approval of a request to relieve the Company from compliance with the Swine Waste Set-Aside requirements until calendar year 2018 by delaying the compliance obligation for a one year period.

The Company's ability to comply in 2018 and 2019 remains subject to multiple variables, particularly related to counterparty achievement of projected delivery requirements and commercial operation milestones. Additional details with respect to the Company's compliance efforts and REC purchase agreements are set forth in Exhibit A and the Company's semiannual progress reports, filed confidentially in Docket No. E-100 Sub113A. The Company remains actively engaged in seeking additional resources and continues to make every reasonable effort to comply with the swine waste set-aside requirements.

### C. POULTRY WASTE-TO-ENERGY RESOURCES

Pursuant to NC Gen. Stat. § 62-133.8(f), as amended by NCUC Order Modifying the Swine and Poultry Waste Set-Aside Requirements and Providing Other Relief, Docket No. E-100, Sub 113 (October 2016), for calendar year 2017, at least 700,000 MWhs, and for 2018 and 2019, at least 900,000 MWhs, or an equivalent amount of energy, shall be produced or procured each year from poultry waste, as defined per the Statute and additional clarifying Orders. As the Company's retail sales share of the State's total retail megawatt-hour sales is approximately 28%, the Company's Poultry Waste Set-Aside is estimated to be 197,939 RECs in 2017, 253,695 RECs in 2018, and 253,695 in 2019.

In an effort to meet compliance with the Poultry Waste Set-Aside, the Company (1) continues direct negotiations for additional supplies of both in-state and out-of-state resources with multiple counterparties; (2) works diligently to understand the technological, permitting, and operational risks associated with various methods of producing qualifying poultry RECs to aid developers in overcoming those risks; when those risks cannot be overcome, the Company works with developers via contract amendments to adjust for more realistic outcomes; (3) explores leveraging current biomass contracts by working with developers to add poultry waste to their fuel mix; (4) explores adding thermal capabilities to current poultry sites to bolster REC production; (5) explores poultry-derived directed biogas at facilities located in North Carolina and directing such biogas to DEP's combined cycle plants for combustion and generation of zero emission renewable electricity; and (6) utilizes the Company's REC trader to search the broker market for out-of-state poultry RECs available in the market.

In spite of Duke Energy Progress' active and diligent efforts to secure resources to comply with its Poultry Waste Set-Aside requirements, poultry waste-to-energy compliance remains a challenge for the Company. The Company's ability to procure sufficient volumes of RECs to meet its pro-rata share of the Poultry Waste Set-Aside requirements in 2017, 2018 and 2019 remains uncertain and largely subject to counterparty performance. One new poultry project has come online in 2017 and another has ramped up production, but a third is undergoing an outage to perform repairs. DEP's ability to comply in 2017 is dependent on these projects producing at their contracted levels and their ability to do so is unlikely. Therefore, the Company submitted a motion to the Commission for approval of a request to reduce the 2017 poultry-waste requirement to 170,000 MWh, maintaining the level of the 2014 - 2016 state-wide requirements and delaying the increase to 700,000 MWh until 2018.

Ramping up to meet the increased compliance targets for 2017 - 2019 has been problematic because other suppliers have either delayed projects or lowered the volume of RECs to be produced. The Company is, nevertheless, encouraged by the growing use of thermal poultry RECs and the proposals that it has recently received from developers. In addition, the Company signed a contract to purchase poultry waste-derived directed biogas from a project in North Carolina that is scheduled to come online in 2018. The directed biogas will be transported via intrastate pipelines and used for fuel in the Company's Richmond County, H.F. Lee or Sutton combined cycle plants. The Company remains actively engaged in seeking additional resources and continues to make every reasonable effort to comply with the Poultry Waste Set-Aside requirements.

Additional details with respect to the Company's compliance efforts and REC purchase agreements are set forth in Exhibit A and the Company's semiannual progress reports, filed confidentially in Docket No. E-100 Sub113A.

### D. GENERAL REQUIREMENT RESOURCES

Pursuant to NC Gen. Stat. § 62-133.8, DEP is required to comply with its Total Obligation in 2017, by submitting for retirement a total volume of RECs equivalent to 6% of prior-year retail sales in North Carolina; in 2018 and 2019, the requirement jumps to 10% of prior-year retail sales in North Carolina. Based on the Company's actual retail sales in 2016, the Total Requirement is 2,243,165 RECs in 2017. Based on forecasted retail sales, the Total Requirement is projected to be approximately 3,735,334 RECs in 2018, and 3,775,036 RECs in 2019. This requirement net of the Solar, Swine Waste, and Poultry Waste Set-Aside requirements, referred to as the General Requirement, is estimated to be 1,966,715 RECs in 2017, 3,380,785 RECs in 2018, and 3,392,990 RECs in 2019. The various resource options available to the Company to meet the General Requirement are discussed below, as well as the Company's plan to meet the General Requirement with these resources.

### 1. Energy Efficiency

During the Planning Period, the Company plans to meet up to 25% of the Total Obligation with Energy Efficiency (EE) savings, which is the maximum allowable amount under NC Gen. Stat. § 62-133.7(b)(2)c. The Company continues to develop and offer its customers new and innovative EE programs that will deliver savings and count towards its future NC REPS requirements. The Company has attached a list of those EE measures that it plans to use toward REPS compliance, including projected impacts and a description of the measure, as Exhibit B.

### 2. Hydroelectric Power

Duke Energy Progress plans to use hydroelectric power from two sources to meet a portion of the General Requirement in the Planning Period: (1) Duke-owned hydroelectric stations that are approved as renewable energy facilities; and (2) hydroelectric generation suppliers whose facilities have received Qualifying Facility (QF or QF Hydro) status. The Company has received Commission approval for one of its hydroelectric stations as a renewable energy facility. The Company continues to use, as appropriate, the RECs generated by this facility to meet the General Requirements of Duke Energy Progress' Wholesale Customers, pursuant to NC Gen. Stat. §62-33.8(c)(2)d. When supplying compliance for the Wholesale Customers, the Company will ensure that hydroelectric resources do not comprise more than 30% of each Wholesale Customers' respective compliance portfolio, pursuant to NC Gen. Stat. § 62-133.8(c)(2)c. In addition, RECs from QF Hydro facilities will be used towards the General Requirements of Duke Energy Progress' retail and wholesale customers. Please see Exhibit A for more information on these contracts.

### 3. Biomass Resources

Duke Energy Progress plans to meet a portion of the General Requirement through a variety of biomass resources, including landfill gas to energy, combined heat and power, and direct combustion of biomass fuels. The Company is purchasing RECs from multiple biomass facilities in the Carolinas, including landfill gas to energy facilities and biomass-fueled combined heat and power facilities, all of which qualify as renewable energy facilities. Please see Exhibit A for more information on each of these contracts.

Duke Energy Progress notes, however, that reliance on direct-combustion biomass remains limited in long-term planning horizons, in part due to continued uncertainties around the developable potential of such resources in the Carolinas and the projected availability of other forms of renewable resources to offset the need for biomass.

### 4. Wind

DEP considers wind a potential viable option to support increased diversity of the renewables portfolio and potentially long term general compliance needs. While the Company may rely upon wind resources for future REPS compliance, the extent and timing will depend on deliverability, policy changes and market prices. Additional opportunities may exist to transmit wind energy from out of state regions where wind is more prevalent into the Carolinas.

### 5. Use of Solar Resources for General Requirement

Duke Energy Progress plans to meet a significant portion of the General Requirement with RECs from solar facilities. Solar energy has emerged as a predominant renewable energy resource in the Southeast, and the Company views the downward trend in solar equipment and installation costs over the past several years as a positive development. New solar facilities also benefit from generous supportive Federal policies that will be in place beyond 2016. As such, the Company is using solar resources to contribute to our compliance efforts beyond the Solar Set-Aside minimum threshold for NC REPS, and will continue to do so during the Planning Period.

Additionally, HB 589 introduces a competitive procurement process for 2,660 MW of additional solar in the Carolinas, with proposals issued over a 45 month period. DEC may develop 30% of the competitive procurement volume and will evaluate the potential for acquiring facilities where appropriate. RECs from these projects will be evaluated for use for future compliance.

### 6. Review of Company's General Requirement Plan

The Company has contracted for, or otherwise procured, sufficient resources to meet its General Requirement in the Planning Period. Based on the known information available at the time of this filing,

the Company is confident that it will meet this General Requirement during the Planning Period, and well beyond, and submits that the actions and plans described herein represent a reasonable and prudent plan for meeting the General Requirement.

### E. SUMMARY OF RENEWABLE RESOURCES

The Company has evaluated, procured, and/or developed a variety of types of renewable energy and energy efficiency resources to meet its NC REPS requirements within the compliance Planning Period. As noted above, several risks and uncertainties exist across the various types of resources and the associated parameters of the NC REPS requirements. The Company continues to carefully monitor opportunities and unexpected developments across all facets of its compliance requirements. Duke Energy Progress submits that it has crafted a prudent, reasonable plan with a diversified balance of renewable resources that will allow the Company to comply with its NC REPS obligation over the Planning Period.

### III. COST IMPLICATIONS OF REPS COMPLIANCE PLAN

### A. CURRENT AND PROJECTED AVOIDED COST RATES

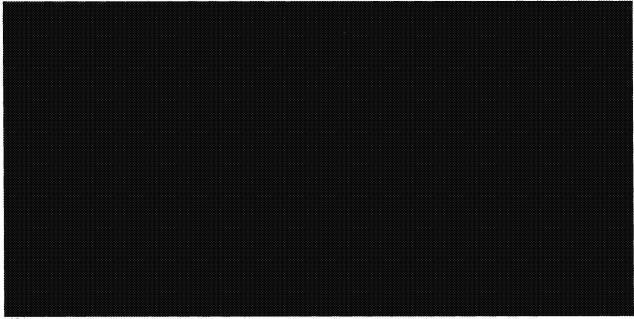
The Current Avoided Energy and Capacity costs included in the table below represent key data elements used to determine the PP (NC) tariff rates filed for DEP in Docket No. E-100, Sub 148.

The "Energy" columns reflect the cost of fuel and variable O&M per kwh embedded in the filed tariff energy rates. The "Capacity" column is based on the installed cost and capacity rating of a combustion turbine unit as reflected in the filed capacity rates.

The Projected Avoided Energy Costs included below reflect updated estimates of the same data elements provided with the current costs. The capacity cost shown is a placeholder based on the current avoided cost filing.

The avoided costs contained herein are subject to change, including (but not limited to) fuel price projections, variable O&M estimates, turbine costs and equipment capability.

Table 2: Current and Projected Avoided Cost Rates Table [BEGIN CONFIDENTIAL]



#### Notes:

- (1) On-peak and off-peak energy rates based on Option B hours and information derived using methodology filed in Docket No. E-100, Sub 148.
- (2) Capacity Cost column provides the installed CT cost with AFUDC /nominal capacity filed in Docket No. E-100, Sub 148.
- (3) The capacity cost shown is a placeholder based on current avoided cost filing.
- (4) Does not incorporate additional considerations used in rate calculation and is subject to change.

[END CONFIDENTIAL]

# B. PROJECTED TOTAL NORTH CAROLINA RETAIL AND WHOLESALE SALES AND YEAR-END NUMBER OF CUSTOMER ACCOUNTS BY CLASS

**Table 3:** Retail Sales for Retail and Wholesale Customers

	2016 Actual	2017 Forecast	2018 Forecast (1)	2019 Forecast (1)
Retail MWh Sales	37,272,480	37,353,340	37,750,361	37,921,683
Wholesale MWh Sales	113,600	115,860	-	-
Total MWh Sales	37,386,079	37,469,201	37,750,361	37,921,683

The MWh sales reported above are those applicable to REPS compliance years 2017-2020, and represent actual MWh sales for 2016, and projected MWh sales for 2017-2019.

(1) DEP's contractual obligation to serve as designated utility compliance aggregator for its wholesale customers for which it provides REPS compliance services ends effective December 31, 2017. Combined estimated retail sales for the wholesale customers total 115,860 MWhs for 2018 and 116,301 MWhs for 2019.

Table 4: Retail and Wholesale Year-end Number of Customer Accounts

	2016 (Actual)	2017 (Projected)	2018 (Projected) (1)	2019 (Projected) (1)
Residential Accts	1,183,723	1,197,944	1,205,628	1,220,096
General Accts	192,864	194,604	195,717	197,283
Industrial Accts	1,983	1,947	1,906	1,872

The number of accounts reported above are those applicable to the cost caps for compliance years 2017 - 2020, and represent the actual number of accounts for year-end 2016, and the projected number of accounts for year-end 2017 - 2019.

(1) DEP's contractual obligation to serve as designated utility compliance aggregator for its wholesale customers for which it provides REPS compliance services ends effective December 31, 2017. Combined estimated year-end account totals for the wholesale customers are: 2018: Residential - 6,717, General - 641, Industrial - 8 and, 2019: Residential - 6,823, General - 649, and Industrial - 8, and are excluded from the 2018 and 2019 amounts shown above.

# C. PROJECTED ANNUAL COST CAP COMPARISON OF TOTAL AND INCREMENTAL COSTS, REPS RIDER AND FUEL COST IMPACT

Projected compliance costs for the Planning Period are presented in the cost tables below by calendar year. The cost cap data is based on the number of accounts as reported above.

Table 5: Projected Annual Cost Caps and Fuel Related Cost Impact

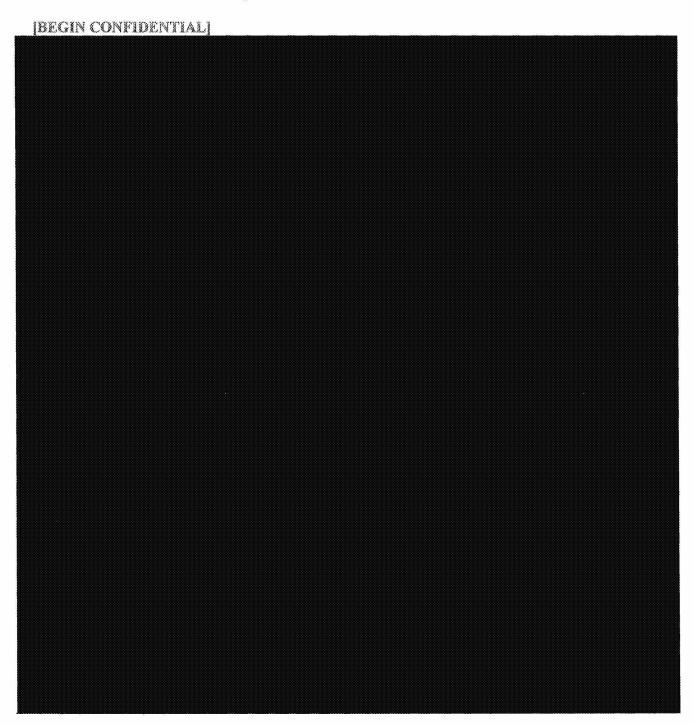
	2017	2018		2019
Total projected REPS compliance costs	\$227,966,251	\$244,254,655	\$	262,113,913
		<u> </u>		
Recovered through the Fuel Rider	\$186,105,458	\$194,916,076	\$	199,658,644
Total incremental costs (REPS Rider)	\$ 41,860,793	\$ 49,338,579	\$	62,455,269
Total including Regulatory Fee	\$ 41,919,480	\$ 49,407,750	\$	62,542,829
	8	30	/4/8	
Projected Annual Cost Caps (REPS Rider)	\$ 62,873,121	\$ 63,201,102	\$	63,815,984

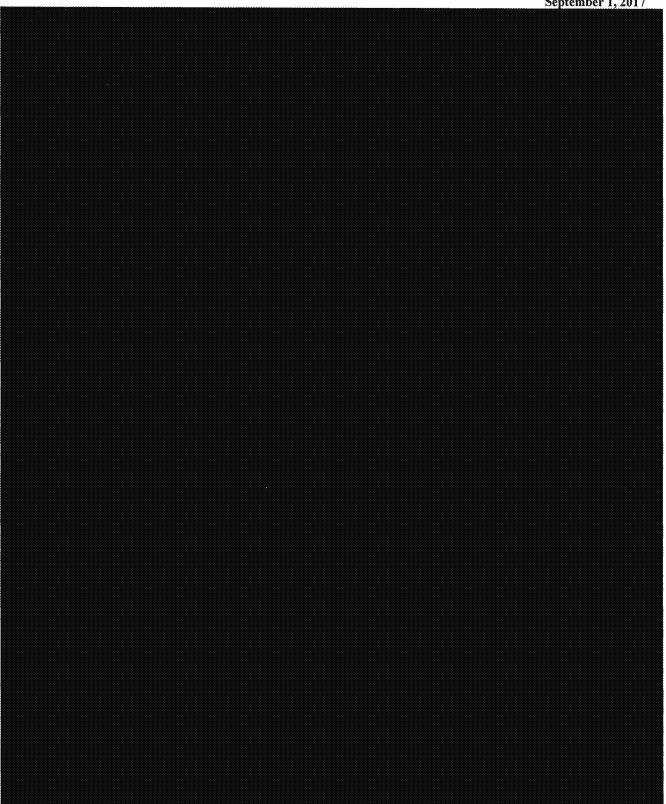
<sup>(1)</sup> DEP's contractual obligation to serve as designated utility compliance aggregator for its wholesale customers for which it provides REPS compliance services ends effective December 31, 2017. Accordingly, the compliance activity totals shown above exclude amounts for the wholesale customers for compliance years 2018 and 2019. Their combined estimated cost caps for compliance years 2018 and 2019 total approximately \$283,000 and \$287,000, respectively.

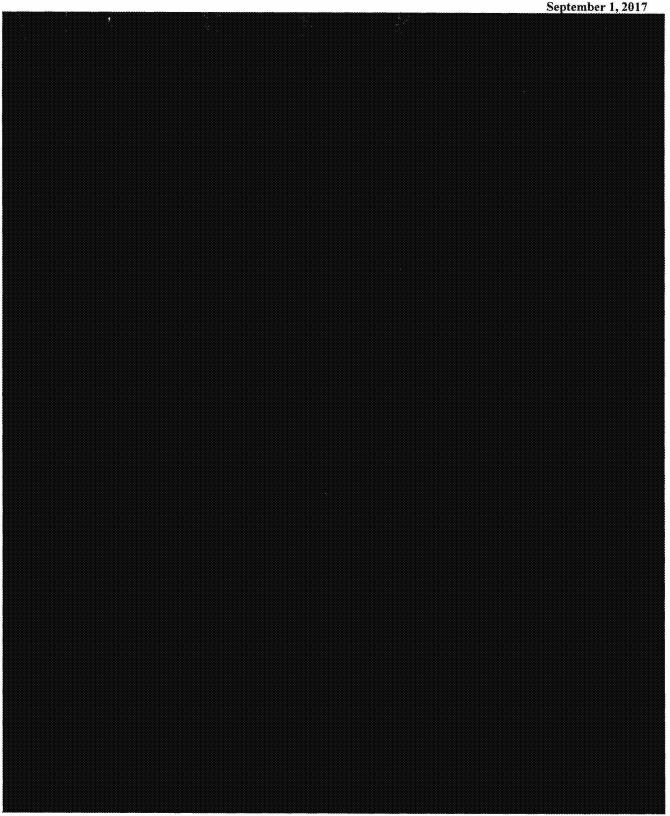
Note that the projected REPS compliance costs in Table 5 do not inclue any costs for the NC Rebate Program in HB 589.

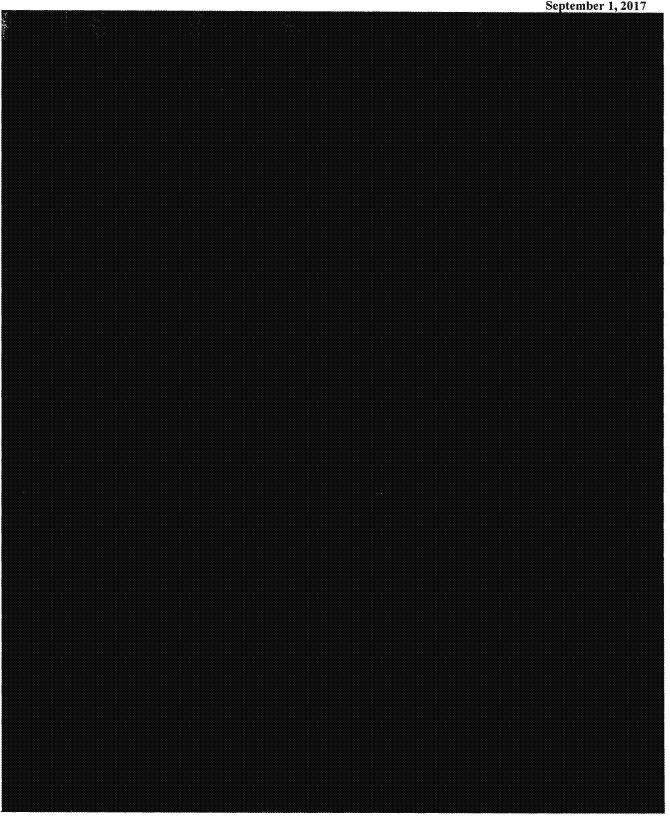
### EXHIBIT A

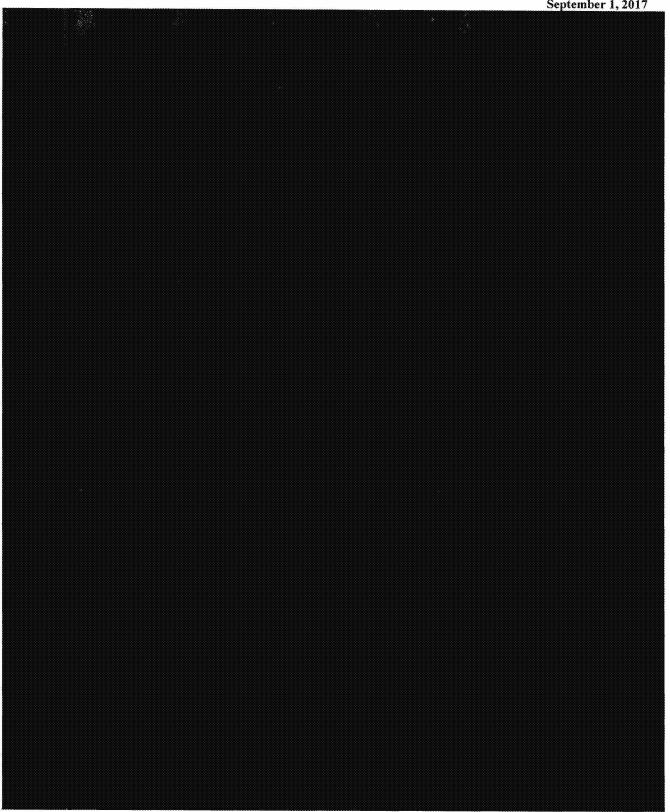
Duke Energy Progress, LLC's 2017 REPS Compliance Plan Duke Energy Progress' Renewable Resource Procurement from 3<sup>rd</sup> Parties (signed contracts as of June 30, 2017)

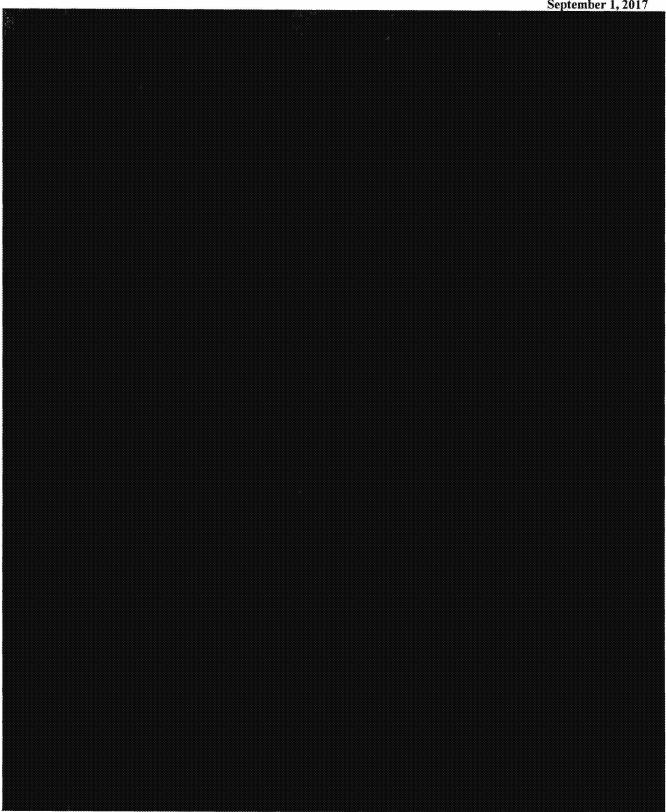


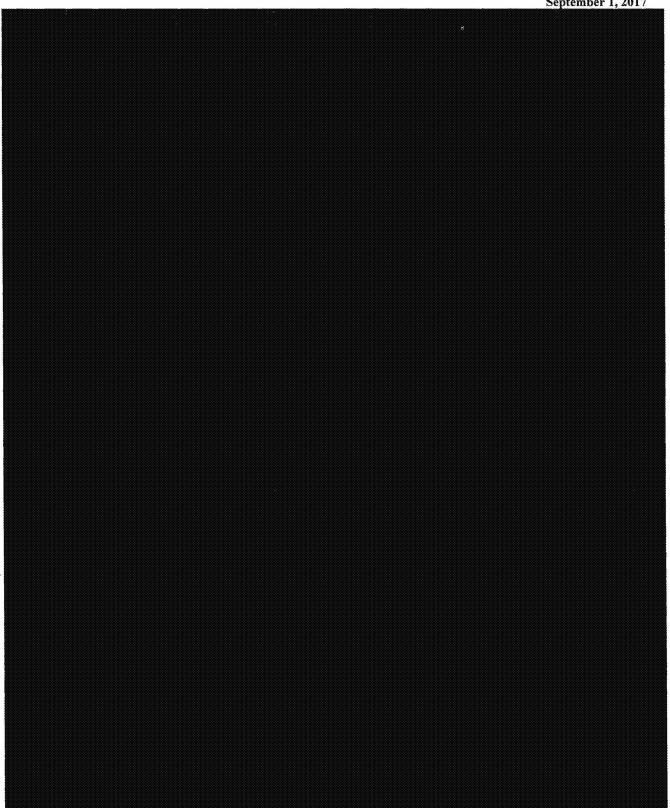


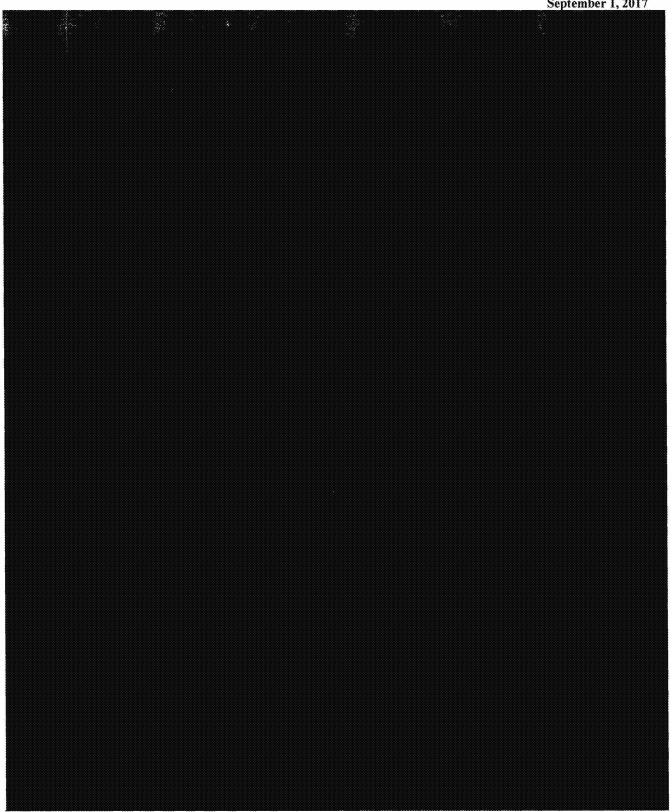


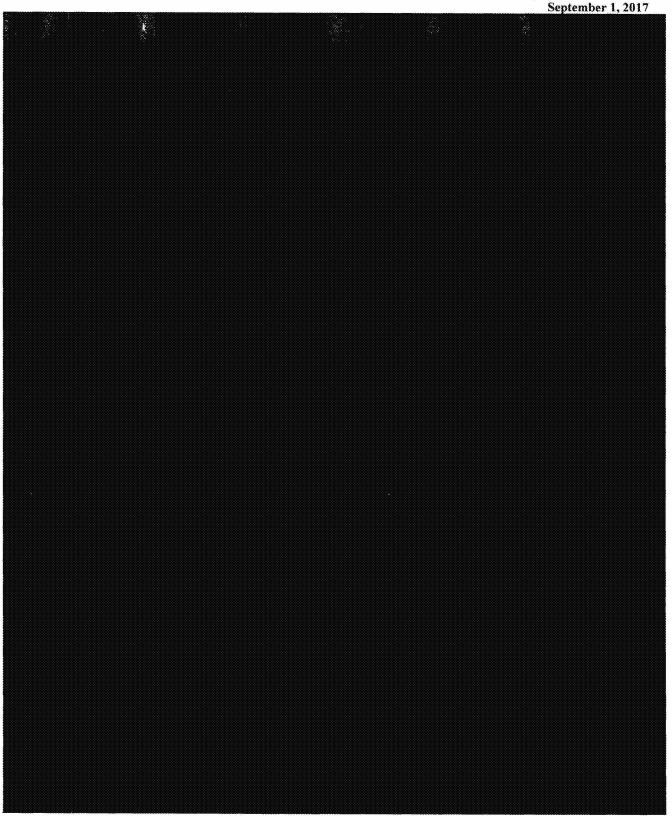


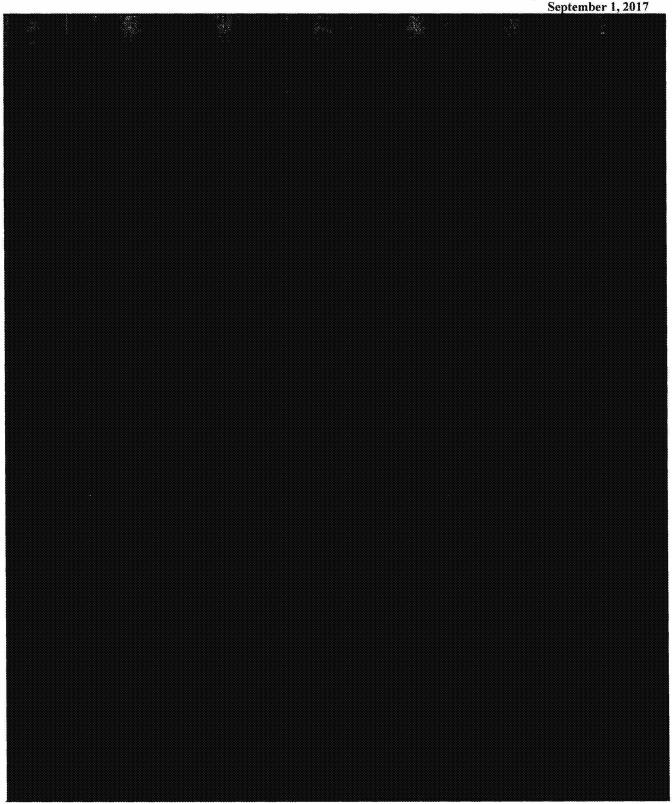


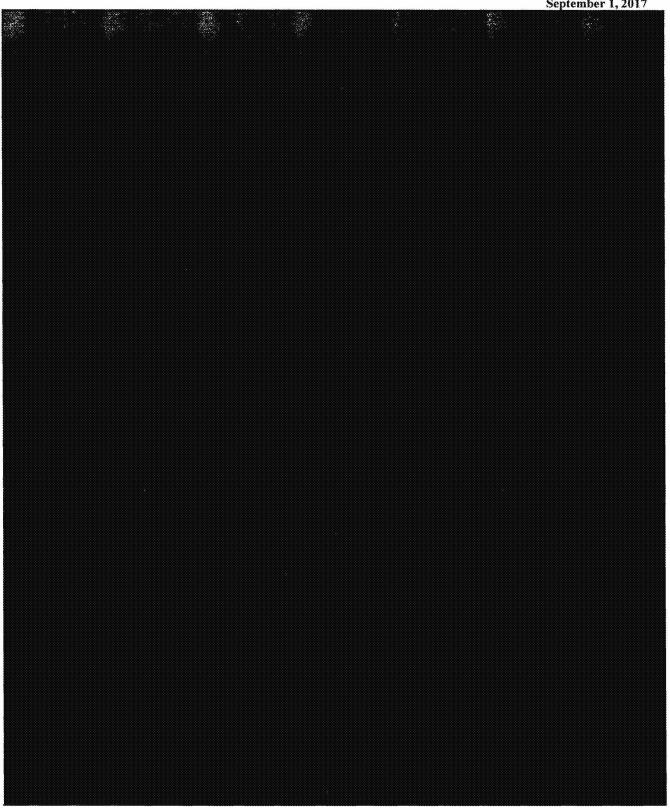


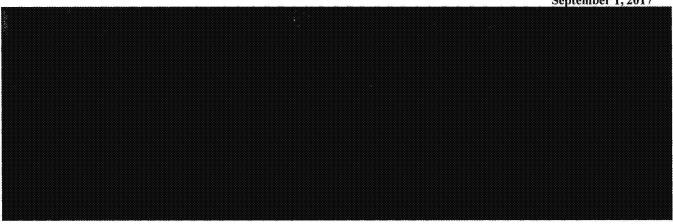












[END CONFIDENTIAL]

## EXHIBIT B

## Duke Energy Progress, LLC's 2017 REPS Compliance Plan Duke Energy Progress, LLC's EE Programs and Projected REPS Impacts

Forecast Annual Energy Efficiency Impacts for the REPS Compliance Planning Period 2017-2019 (MWhs)					
Residential Programs	2017	2018	2019		
Home Energy Improvement Program	2,253,464	2,865,187	3,063,777		
Energy Education Program for Schools	1,169,203	1,398,733	1,495,682		
Energy Efficient Lighting	64,879,965	53,906,904	57,643,268		
Multi-Family EE Products & Services	10,513,058	9,796,164	10,475,150		
My Home Energy Report	(5,588,952)	1,599,152	678,043		
Neighborhood Energy Saver	1,016,323	1,423,869	1,522,559		
Residential Energy Assessments	1,833,982	1,904,790	2,036,814		
Residential New Construction	4,592,259	8,750,814	9,357,346		
Save Energy and Water Kit	18,603,619	20,232,229	21,634,553		
Sub Total	99,272,920	101,877,843	107,907,191		
Non Residential Programs	2017	2018	2019		
EnergyWise for Business	1,243,268	1,670,791	1,688,821		
Non-Res Performance (Custom)	9,563,987	8,981,658	9,078,582		
Non-Res Performance (Prescriptive)	52,600,971	33,092,927	33,450,046		
Small Business Energy Saver	36,270,363	39,886,194	40,316,623		
Non-Res Performance Incentive	0	1,352,544	1,367,140		
Sub Total	98,435,321	83,313,324	84,212,392		
Total	197,708,240	185,191,167	192,119,583		

### **DEP Energy Efficiency Programs**

DEP uses the following EE programs in its IRP to efficiently and cost-effectively alter customer demands and reduce the long-run supply costs for energy and peak demand.

### **Residential Customer Programs**

- Energy Efficiency Education Program
- Energy Efficient Lighting Program
- Home Energy Improvement Program
- Multi-Family Energy Efficiency Program
- My Home Energy Report
- Neighborhood Energy Saver (Low-Income) Program
- Residential Energy Assessments Program
- Residential New Construction Program
- Save Energy and Water Kit Program

### **Non-Residential Customer Programs**

- Energy Efficiency for Business Program
- Small Business Energy Saver Program
- EnergyWise<sup>SM</sup> for Business Program

### **Residential EE Programs**

### Energy Efficiency Education Program

The Energy Efficiency Education Program is an energy efficiency program available to students in grades K-12 enrolled in public and private schools who reside in households served by Duke Energy Progress. The Program provides principals and teachers with an innovative curriculum that educates students about energy, resources, how energy and resources are related, ways energy is wasted and how to be more energy efficient. The centerpiece of the current curriculum, which is administered by The National Theatre for Children, is a live theatrical production focused on concepts such as energy, renewable fuels and energy efficiency performed by two professional actors. Teachers receive supportive educational material for classroom and student take home assignments. The workbooks, assignments and activities meet state curriculum requirements.

Following the performance, students are encouraged to complete a home energy survey with their family (included in their classroom and family activity book) to receive an Energy Efficiency Starter Kit. The kit contains specific energy efficiency measures to reduce home energy

consumption. The kit is available at no cost to all student households at participating schools, including customers and non-customers.

### Energy Efficient Lighting Program

The Energy Efficient Lighting Program works through lighting manufacturers and retailers to offer discounts to DEP customers at the register on energy efficient lighting products such as LEDs, CFLs and fixtures. The DEP Energy Efficient Lighting Program will continue to encourage customers to adopt energy efficient lighting through incentives on a wide range of lighting products. Customer education is imperative to ensure customers are purchasing the right bulb for the application in order to obtain high satisfaction with lighting products and subsequent purchases.

### Home Energy Improvement Program

The Home Energy Improvement Program offers DEP customers a variety of energy conservation measures designed to increase energy efficiency for existing residential dwellings that can no longer be considered new construction. The prescriptive menu of energy efficiency measures provided by the program allows customers the opportunity to participate based on the needs and characteristics of their individual homes. A referral channel successfully launched in June 2016, providing free, trusted referrals to customers seeking reliable, qualified contractors for their energy saving home improvement needs. The measures eligible for incentives through the program are:

- High-Efficiency Heat Pumps and Central A/C
- Duct Repair
- HVAC Audit
- Insulation Upgrades/Attic Sealing
- High Efficiency Room Air Conditioners
- Heat Pump Water Heater
- HVAC Quality Installation
- Smart Thermostat
- Variable Speed Pool Pumps

### Multi-Family Energy Efficiency Program

The Multi-family Energy Efficiency Program allows DEP to utilize an alternative delivery channel which targets multi-family apartment complexes for energy efficiency upgrades. The Program is designed to help property managers upgrade lighting with energy efficient light bulbs and also save energy by offering water measures such as bath and kitchen faucet aerators, water saving showerheads and pipe wrap to eligible customers with electric water heating. In addition, the Program offers properties the option of direct install service by a third-party vendor or to use their

own property maintenance crews to complete the installations. Post-installation Quality Assurance inspections by an independent third-party are conducted on 20 percent of properties that completed installations in a given month.

### My Home Energy Report Program

The My Home Energy Report (MyHER) Program was designed to help customers better understand their energy usage. The program provides customers with a periodic comparative usage report that compares a their energy use to similar residences in the same geographical area based upon the age, size and heating source of the home. Energy saving recommendations are included in the report to encourage energy saving behavior. The reports are distributed up to 12 times per year (delivery may be interrupted during the off-peak energy usage months in the fall and spring). Each customer's usage is compared to the average home (top 50 percent) in their area as well as the efficient home (top 25 percent). Suggested energy efficiency improvements, given the usage profile for that home, are also provided. In addition, measure-specific offers, rebates or audit follow-ups from other Company offered programs are offered to customers, based on the customer's energy profile.

An interactive online portal was introduced in 2016, allowing customers to further engage and learn more about their energy use and opportunities to reduce usage. Electronic versions of the My Home Energy Report are sent to customers enrolled on the portal.

### Neighborhood Energy Saver (Low-Income) Program

DEP's Neighborhood Energy Saver Program reduces energy usage through the direct installation of energy efficiency measures within the households of income qualifying residential customers. The Program utilizes a Company-selected vendor to: (1) provide an on-site energy assessment of the residence to identify appropriate energy conservation measures, (2) install a comprehensive package of energy conservation measures at no cost to the customer, and (3) provide one-on-one energy education. Program measures address end-uses in lighting, refrigeration, air infiltration and HVAC applications.

Program participants receive a free energy assessment of their home followed by a recommendation of energy efficiency measures to be installed at no cost to the resident. A team of energy technicians will install applicable measures and provide one-on-one energy education about each measure emphasizing the benefit of each and recommending behavior changes to reduce and control energy usage.

### Residential Energy Assessments Program

The Residential Energy Assessments Program provides eligible customers with a free in-home energy assessment performed by a Building Performance Institute (BPI) certified energy specialist designed to help customers reduce energy usage and save money. The BPI certified energy specialist completes a 60 to 90 minute walk through assessment of a customer's home and analyzes energy usage to identify energy savings opportunities. The energy specialist discusses behavioral and equipment modifications that can save energy and money with the customer. The customer also receives a customized report that identifies actions the customer can take to increase their home's efficiency.

In addition to a customized report, customers receive an energy efficiency starter kit with a variety of measures that can be directly installed by the energy specialist. The kit includes measures such as energy efficiency lighting, low flow shower head, low flow faucet aerators, outlet/switch gaskets, weather stripping and an energy saving tips booklet.

### Residential New Construction Program

The Residential New Construction Program incents the installation of high-efficiency heating ventilating and air conditioning and heat pump water heating equipment in new residential construction. Additionally, the Program incents new construction built to or above the 2012 North Carolina Energy Conservation Code's High Efficiency Residential Option (HERO). If elected by a builder or developer constructing to the HERO standard, the Program also offers the homebuyer a Heating and Cooling Energy Usage Limited Guarantee that guarantees the heating and cooling consumption of the dwelling's total annual energy costs.

The primary objectives of this program are to reduce system peak demands and energy consumption within new homes. New construction represents a unique opportunity for capturing cost effective EE savings by encouraging the investment in energy efficiency features that would otherwise be impractical or more costly to install at a later time. These are often referred to as lost opportunities.

### Save Energy and Water Kit Program

The Save Energy and Water Kit is designed to increase the energy efficiency within single family homes by offering low flow water fixtures and insulated pipe tape to residential customers with electric water heaters. Participants receive a free kit that includes installation instructions and varying numbers (based on the number of full bathrooms in their home) of bath aerators, kitchen aerators, shower heads and pipe insulation tape. The program has a website in place that customers can access to learn more about the program or watch video's produced to aid in the installation of the kit measures.

### Non-Residential EE Programs

### Energy Efficiency for Business Program

The Energy Efficiency for Business Program provides incentives to DEP commercial and industrial customers to install high efficiency equipment in applications involving new construction and retrofits and to replace failed equipment.

Commercial and industrial customers can have significant energy consumption but may lack knowledge and understanding of the benefits of high efficiency alternatives. The Program provides financial incentives to help reduce the cost differential between standard and high efficiency equipment, offer a quicker return on investment, save money on customers' utility bills that can be reinvested in their business, and foster a cleaner environment. In addition, the Program encourages dealers and distributors (or market providers) to stock and provide these high efficiency alternatives to meet increased demand for the products.

The program provides incentives through prescriptive measures, custom measures and technical assistance.

- Prescriptive Measures: Customers receive incentive payments after the installation of
  certain high efficiency equipment found on the list of pre-defined prescriptive measures,
  including lighting; heating, ventilating and air conditioning equipment; and refrigeration
  measures and equipment.
- Custom Measures: Custom measures are designed for customers with electrical energy saving projects involving more complicated or alternative technologies, whole-building projects, or those measures not included in the Non-Residential Energy Efficiency for Business measure list. The intent of the Program is to encourage the implementation of energy efficiency projects that would not otherwise be completed without the Company's technical or financial assistance. Unlike Prescriptive portion of the program, all Custom measure incentives requires pre-approval prior to the project implementation.
- Technical Assistance: Technical Assistance incentives are offered for new construction and
  retrofit application to provide assistance to qualified customers with development or
  implementation of system and building enhancements. Assistance may include, but is not
  limited to, feasibility studies, detailed energy audits, and retro-commissioning of existing
  systems, or for efficiency design or energy modeling for new structures and systems. All
  measures involving technical assistance incentives must receive pre-approval before
  implementation.

### Small Business Energy Saver Program

The Small Business Energy Saver Program reduces energy usage through the direct installation of energy efficiency measures within qualifying small non-residential customer facilities. Program measures address major end-uses in lighting, refrigeration, and HVAC applications. The program is available to existing non-residential customers that are not opted-out of the Company's EE/DSM rider and have an average annual demand of 100 kW or less per active account.

Program participants receive a free, no-obligation energy assessment of their facility followed by a recommendation of energy efficiency measures to be installed in their facility along with the projected energy savings, costs of all materials and installation, and up-front incentive amount from Duke Energy Progress. Upon receiving the results of the energy assessment, if the customer decides to move forward with the proposed energy efficiency project, the customer makes the final determination of which measures will be installed. The energy efficiency measure installation is then scheduled at a convenient time for the customer and the measures are installed by electrical subcontractors of the Company-authorized vendor.

All aspects of the program are administered by a single Company-authorized vendor. The program is designed as a pay-for-performance offering, meaning that the Company-authorized vendor administering the Program is only compensated for energy savings produced through the installation of energy efficiency measures.

# EnergyWise<sup>SM</sup> for Business Program

EnergyWise<sup>SM</sup> for Business is both an energy efficiency and demand response program for non-residential customers that allows DEP to reduce the operation of participants air conditioning units to mitigate system capacity constraints and improve reliability of the power grid.

Program participants can choose between a Wi-Fi thermostat or load control switch that will be professionally installed for free on each air conditioning or heat pump unit. In addition to equipment choice, participants can also select the cycling level they prefer (i.e., a 30%, 50% or 75% reduction of the normal on/off cycle of the unit). During a conservation period, DEP will send a signal to the thermostat or switch to reduce the on time of the unit by the cycling percentage selected by the participant. Participating customers will receive a \$50 annual bill credit for each unit at the 30% cycling level, \$85 for 50% cycling, or \$135 for 75% cycling. Participants that have a heat pump unit with electric resistance emergency/back up heat and choose the thermostat can also participate in a winter option that allows control of the emergency/back up heat at 100% cycling for an additional \$25 annual bill credit. Participants will also be allowed to override two conservation periods per year.

Participants choosing the thermostat will be given access to a portal that will allow them to set schedules, adjust the temperature set points, and receive energy conservation tips and communications from DEP anywhere they have internet access. In addition to the portal access, participants will also receive conservation period notifications, so they can make adjustments to their schedules or notify their employees of upcoming conservation periods.